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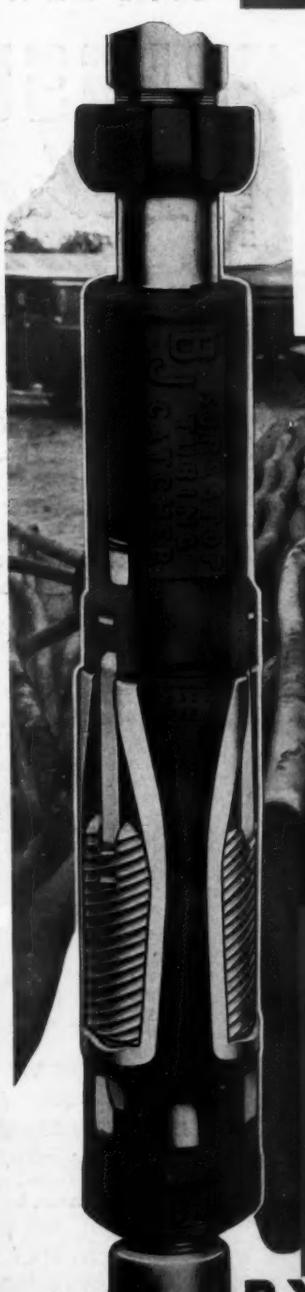

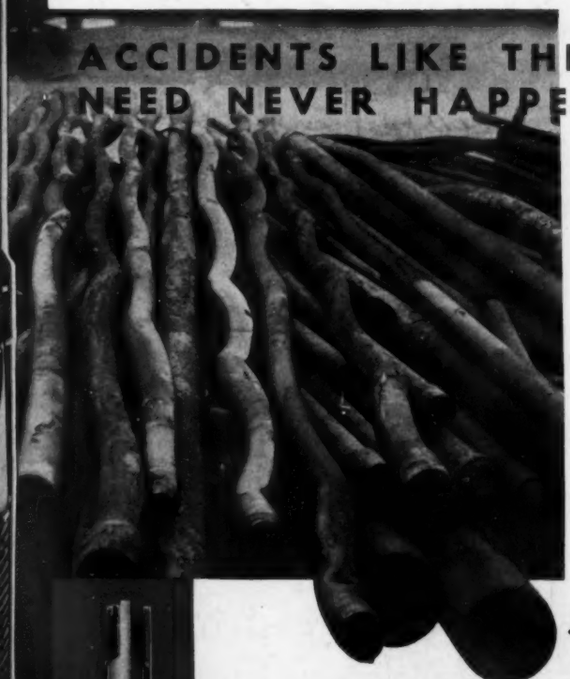

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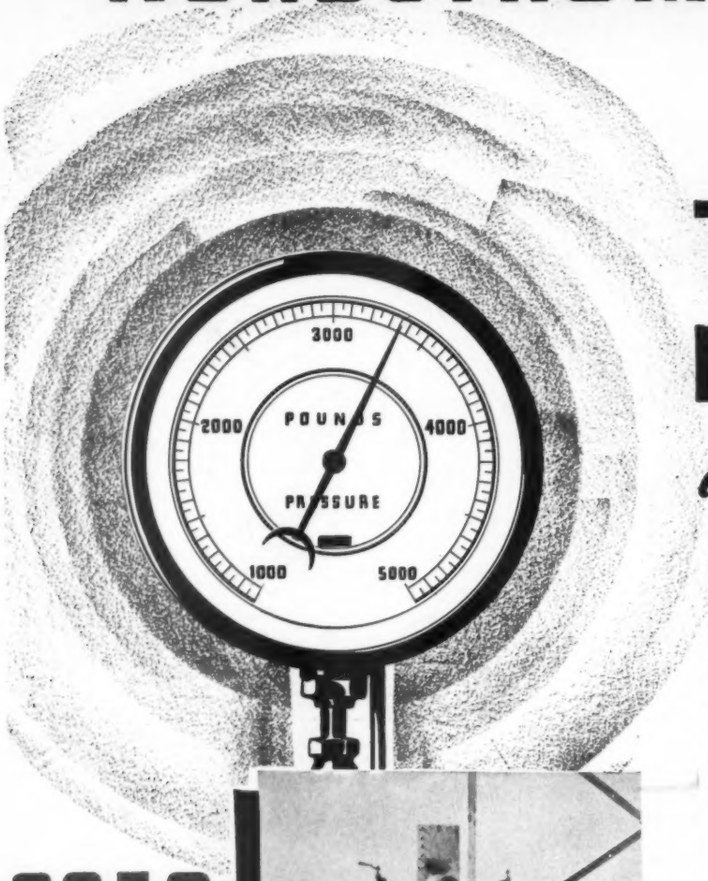

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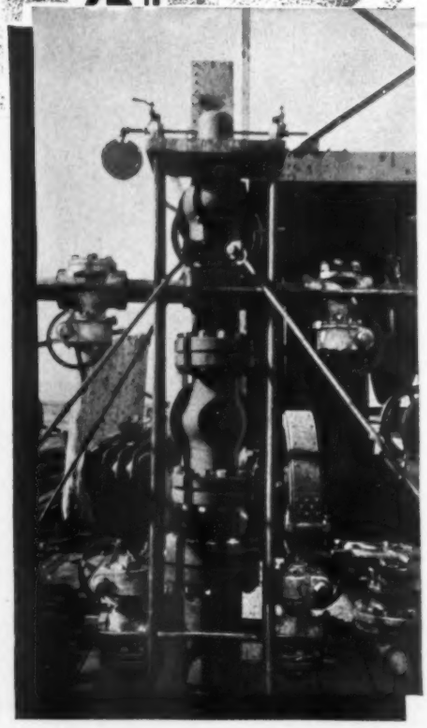

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THE OIL AND GAS JOURNAL

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Number 39

February 14, 1935

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OIL MAN'S CALENDAR

February

12-14 — Columbus, Ohio, Ohio Petroleum Marketers Association, annual dinner Deshler-Wallick Hotel.

18-21—New York, Petroleum Division, A.I.M.E. (A.I.M.E. annual meeting).

20-21—Peoria, Ill., Illinois Petroleum Marketers Association, Pere Marquette Hotel.

March

21-23—Wichita, Kans., American Association of Petroleum Geologists, annual meeting.

April

2-3—New York, National Oil Burner Dealers Association, Pennsylvania Hotel.

8-13 — Houston, Tex., Oil Equipment and Engineering Exposition.

11-13—Dallas, Tex., Petroleum Industry Electrical Association, Baker Hotel.

22—New York, American Chemical Society, semiannual meeting.

(?) — Wichita, Kans., Kansas Oil Men's Association.

May

1-3—Tulsa, Natural Gasoline Association of America, Hotel Tulsa.

6-9 — Memphis, Tenn., Natural Gas Department, A.G.A., Peabody Hotel.

8-11—Tulsa, Oil and Gas Power Division of A.S.M.E., Mayo Hotel.

14-16—Tulsa, American Petroleum Institute, fifth mid-year meeting, Mayo Hotel.

June

20-21 — State College, Pa., Pennsylvania Grade Crude Oil Association, annual meeting.

24-28 — Detroit, Mich., American Society for Testing Materials, annual meeting, Book Cadillac Hotel.

November

4-5 — Dallas, Tex., I.P.A.A. annual convention.

11-14 — Los Angeles, sixteenth annual meeting, A.P.I., Los Angeles Biltmore Hotel.

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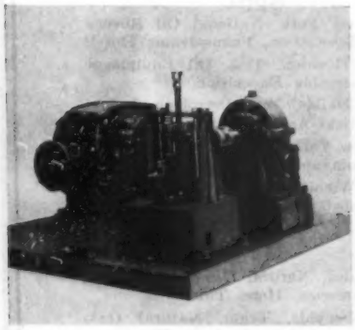

Two types of Hills-McCanna "S" Type Proportioning Pumps are produced.

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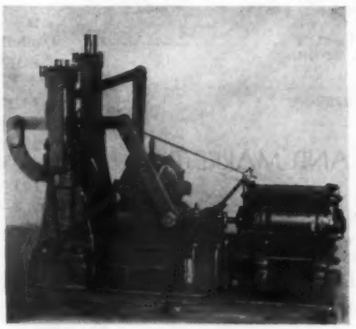

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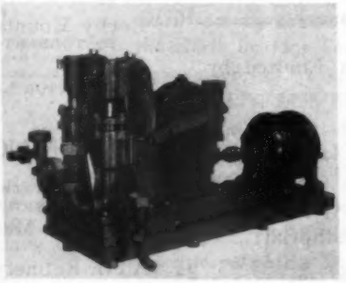

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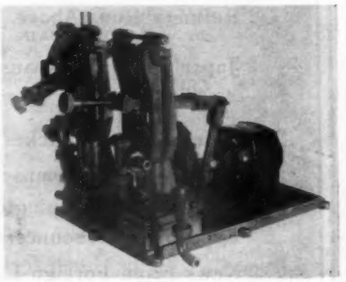

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Increased Drilling, Which Started in Oklahoma and Kansas, Is Spreading to Many Areas

By ANDREW M. ROWLEY

DRILLING operations in promising areas are increasing and wildcatters are becoming more busy, showing clearly the prevalence of the feeling that continued large consumption will take care of any crude oil reserves discovered and developed under conservative plans. Oklahoma and Kansas are especial centers of interest, the first because of the large producers being completed in the Fitts Pool and of recent discoveries in the Altus Field section of Jackson County and the latter due to results from operations in the western end of the state and good wells being brought in in the Haury-Burrton Pool.

A number of counties in Southwestern Oklahoma have been experiencing an intensive leasing play and locations for tests have been made on a number of new blocks taken up since the Gypsy Oil Company discovered commercial production at Altus. One test will be drilled in the center of 11,000 acres in Harmon County. Six wells completed in the Haury-Burrton Pool in Kansas last week averaged 3,222 barrels daily, a high level of output, and one which is regarded as a big factor in stimulating a large number of operations scattered through that part of the state and other promising sections.

Gulf Coast operators feel a pool of importance may be opened as a result of the completion of a well in the Gillis area of Calcasieu Parish, La. which made 58 barrels an hour of 45 gravity oil from a newly discovered producing horizon in the field. In the Texas section of the Gulf Coast the first flank production of importance has been obtained from the Cockfield Sand at Sour Lake.

Michigan is trying a new plan of proration based on estimates of what a well could produce over a period of time rather than a potential figured from an open flow for a few hours. The Pure Oil Company completed the largest well brought in in Michigan in the past five months when its well in the Porter Township Pool of Midland County made 342 barrels in the first 45 minutes of flow.

California operators are giving more consideration to the matter of deeper drilling in proven areas to increase existing reserves. The discovery on the extreme eastern edge of Montebello may be good for 1,000 barrels daily and with new deep tests scheduled for the Mountain View and Edison Fields, it is felt deeper drilling will be an important factor in California operations this year. Seven locations staked in Southeastern New Mexico mark the start of a substantial drilling campaign in that area.

More optimism pervades the refined oil market as shipments from East Texas are being absorbed in the East without undue effect upon the price structure and the new marketing organization formed to handle East Texas gasoline began to function under the direction of a man especially well versed in conditions in East Texas.

Crude Oil Production in the United States

Estimated daily average production for the week ending February 9, a comparison with previous week and the Federal allowables follow:

	Feb. 9	Federal allowable February	Feb. 2
Oklahoma—			
Oklahoma City	130,475	.....	117,600
Seminole-St. Louis	81,675	.....	75,310
Remainder of State	243,375	.....	248,415
Total Oklahoma	455,525	497,100	441,325
East Texas—			
Lathrop	167,310	.....	163,425
Kilgore	158,434	.....	156,310
Joiner	139,764	.....	135,468
Total East Texas	465,508	.....	455,203
West Texas	150,273	.....	148,427
North Central Texas	82,715	.....	88,453
Texas Panhandle	59,125	.....	60,534
East Central Texas	52,274	.....	51,252
Gulf Coast—Texas	175,775	.....	176,425
Southwest Texas	58,675	.....	58,445
Total State of Texas	1,044,345	1,031,700	1,038,739
Kansas	139,700	138,600	137,225
North Louisiana	22,805	.....	22,835
Gulf Coast—Louisiana	91,275	.....	91,776
Total Louisiana	114,080	109,500	114,611
Arkansas	31,225	32,000	31,490
Eastern Fields (except Michigan)	102,000	100,700	101,000
Michigan	35,817	30,000	36,084
Rocky Mountain area	96,120	97,900	93,630
California—			
Santa Fe Springs	39,600	.....	35,600
Long Beach	69,500	.....	53,500
Mountain View	19,500	.....	20,100
Elwood	8,500	.....	8,000
Kettleman Hills	69,250	.....	74,000
Remainder of State	321,400	.....	286,100
Total California	527,750	488,600	477,300
Total United States	2,546,562	2,526,100	2,471,404

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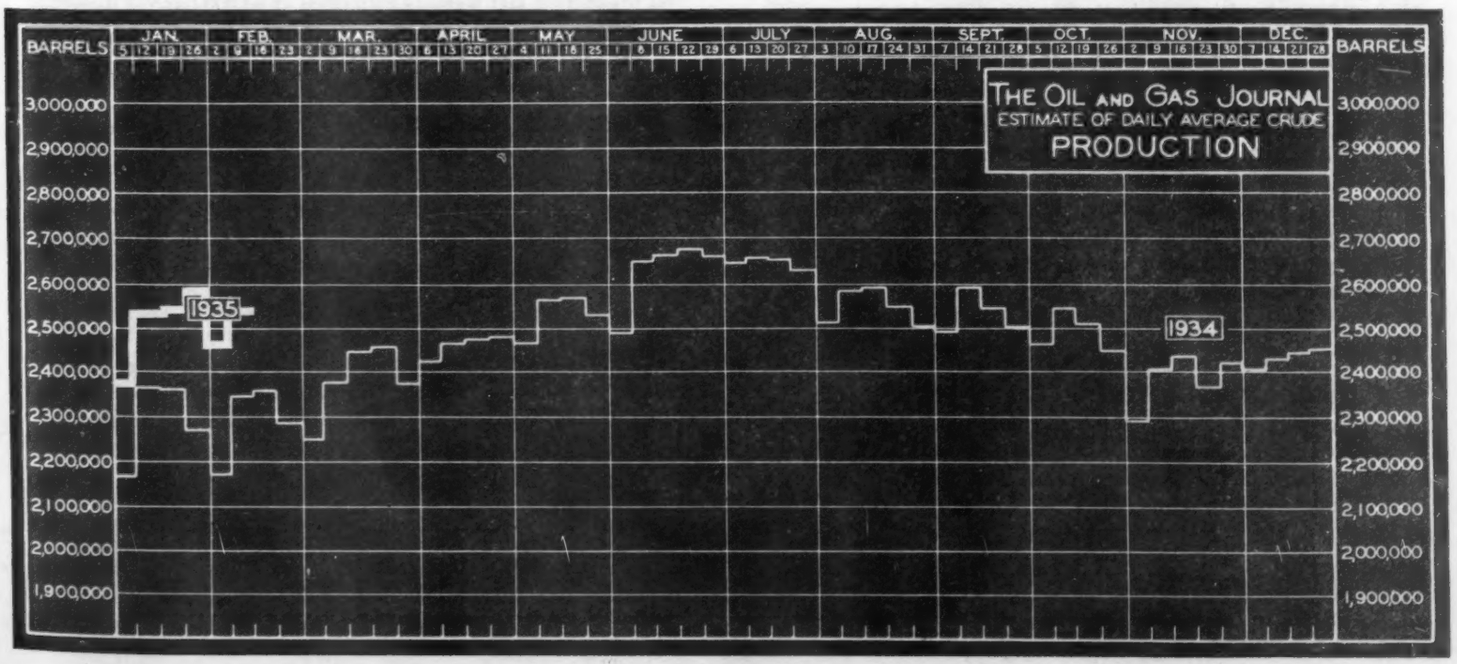


The Bulletin Board

The Connally Bill, changed in important features, is expected to be passed by the House of Representatives within a few days. Provisions, including one declaring oil shipped in violation of the law to be contraband, would be invoked only upon order by the President instead of being in force permanently as provided in the Connally Bill as passed by the Senate.

•

Natural gasoline manufacture in Texas in 1934 placed that state in second place in production of this product, with a total output only 35,000,000 gallons less than California which state exceeded Texas in 1933 by 130,000,000 gallons. Texas is first in production now and may hold the lead for several months.

•

Record consumption of gasoline and kerosene in the United States in 1934 is shown officially in the Bureau of Mines report. The new peak for domestic demand for gasoline exceeds the previous record made in 1931 despite the fact records show fewer automobiles registered in 1934. The new peak for domestic demand for kerosene was more of a surprise. It exceeded the previous record made in 1925 by 8 per cent.

•

Refinery operations in the Mid-Continent have been increased 26,000 barrels daily during February as compared to January but are 5,000 barrels daily less than in February, 1934. The increase comes from East Texas plants.

•

Propane, hundreds of tons of which have been wasted at refineries, now finds use as a most logical solvent, dewaxing agent and refrigerant in the manufacture of lubricants.

•

Production control of the unitized pool near Keokuk Falls, Okla., shows especial benefits as a result of the plan of operation which maintains the pressure by keeping the rate of production in balance with the rate of encroaching edgewater. Well potentials show a decline of only one-half of one per cent in nearly a year despite a large production in the meantime.

•

New car production in January exceeded that of January, 1934 by 87 per cent, according to the Automobile Manufacturers' Association, creating optimism among refiners and marketers whose business is influenced greatly by automobile production and sales.

•

Taxes paid by motorists in 1934 were 65 per cent greater than all Federal government expenses in 1916.

Purchase of East Texas Field mineral rights by the Federal government at an estimated cost of about two billion dollars would be provided for in a bill Congressman Martin Dies of Texas is seriously considering introducing into Congress.

•

Quotas in commerce would be fixed by a Federal board of five members, four to be appointed by the President and the fifth being the Secretary of the Interior acting as an ex-officio member, according to terms of a bill prepared by Congressman Wesley Disney of Tulsa and submitted to President Roosevelt for consideration and to the attorney-general for an opinion as to its legality.

•

Byles versus Ickes again claimed attention of the petroleum industry this week as the president of the American Petroleum Institute in a few words thoroughly answered an article of the Oil Administrator published in the Saturday Evening Post. While Mr. Ickes emphasized waste, Mr. Byles showed improvements made by the oil industry resulted in less than one-half the quantity of crude oil being necessary to make gasoline required in 1934 than would have been necessary under processes used in 1917 while gasoline prices to the public in 1934 were just one-half what they were 15 years ago.

•

East Texas oil shipments increased last week due to movements protected by court injunctions, which, many claim, have been granted freely, quite often without the Texas Railroad Commission being notified of hearings or having an opportunity to be represented or heard. The legislature is considering measures to correct this situation. Hot oil production last week is estimated at 43,000 barrels daily.

•

Japan's oil supply is more of a factor in the question of naval parity than the matter of tons and guns. Japan produces only about one-tenth of the petroleum she uses normally. Her oil supply depends on the attitude of the three countries mostly affected by the extension of her foreign policy.

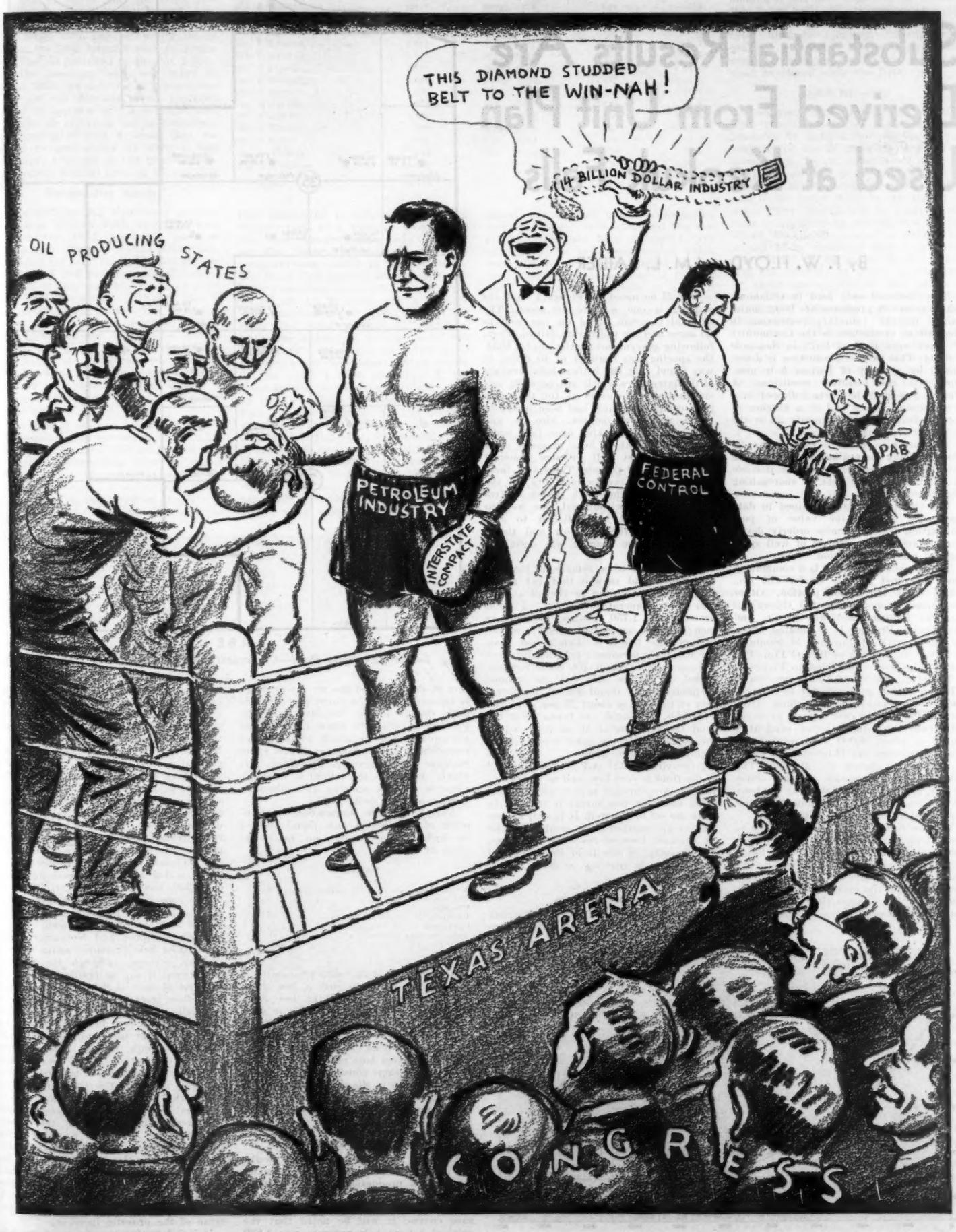
•

Another cent added to Federal gasoline taxes is reported as being favored by Harold L. Ickes, Public Works Administrator, the money to be used for the elimination of grade crossings on railroads.

•

N. R. A. continuation for two years in somewhat modified form, with inclusion of the petroleum industry under its provisions, is anticipated in Washington as Congress awaits word from the President on the matter.

Let Him Use His Left



—Drawn exclusively for The Oil and Gas Journal

Substantial Results Are Derived From Unit Plan Used at Keokuk Falls

By F. W. FLOYD and M. L. RAIDER

The first and only pool in Oklahoma where reservoir pressures are being maintained through voluntary restriction in the rate of production is the Community 28 block near Keokuk Falls in Seminole County. This rate of production is determined by a study of bottom hole pressure data and reservoir conditions. A similar procedure has been followed in a few fields in Texas and in a number of foreign fields. But Community 28 is the first in Oklahoma.

The pressure in this Community 28 block is being maintained by keeping the rate of production as nearly as possible in balance with the rate of encroaching edgewater.

The results and data obtained to date emphasize sharply the value of pool unitization which permits orderly development and proper control of well spacing and rate of production.

The Keokuk Falls Pool is a community block operated by the Carter Oil Co., which owns the major portion. Other companies interested are the Gypsy Oil Co., the British American Oil Co. and the Sinclair-Prairie. It is located about 10 miles north of the city of Seminole in Range 6e, Townships 10 and 11n. The community block is outlined on Figure 1.

The block consists of 1,360 acres, about 1,100 of which are expected to be productive. The pool is an anticlinal structure faulted on the east side. It produces principally from the Misener sand at a depth of about 4,000 feet, with some production from the Hunton lime which is immediately below the Misener. The Misener sand penetration averages about 20 feet, and the average porosity is about 10 per cent. The Hunton lime has been penetrated in only three wells.

The discovery well, No. 1 Keokuk, was brought in March 6, 1933, with an initial production of 2,061 bbls. per day. Since then additional wells have been completed at an average rate of one about every 40 days, the total number of wells being 15 at the present time. The actual completion dates of the wells are shown on Figure 1.

It will be noted on Figure 1 that the spacing is one well to 40 acres. The original program called for one well to 20 acres and six wells were drilled. Then, following government regulations for 1934, the spacing was changed to 40 acres. It was found that the bottom hole pressure of the later more widely spaced wells was substantially the same as for the wells first completed which had been produced for a period of months. Also, it was found that when taking open flow tests, the shut-in bottom hole pressure of a 1,320-foot offset well (40-acre spacing) was reduced 30 pounds. These two facts indicated that the permeability of the sand was such that with proper control of the rate of withdrawal, one well to 40 acres should be sufficient to adequately drain the reservoir and therefore the 40-acre spacing was definitely adopted.

Examination of a sample of the bottom hole liquid showed that (a) all of the gas is in solution in the oil at bottom hole temperature at 132° F. and pressure of 1,750 pounds per square inch; (b) the saturation pressure of the bottom hole liquid is slightly less than the reservoir pressure; (c) the dissolved gas amounts to about 700 cubic feet per barrel of surface oil; (d) the volume shrinkage of the liquid due to the liberation of the gas, is about 25 per cent, i.e., 1.33 bbls. of liquid are taken from the sand for each barrel of oil produced at the surface; (e) the gravity of the bottom hole liquid is about 62° A.P.I. At this gravity of 62° A.P.I., the viscosity of the fluid is very low, and as the resistance to flow through sand is proportional to its viscosity, less energy is required to move the oil to the well. It is well known that as gas escapes from solution in the oil through lowered reservoir pressures, the viscosity of the fluid increases and more energy is required to move the oil through the sand.

Viscosity Changes

Figure 4 shows how the viscosity may be expected to change due to the liberation of the dissolved gas as the pressure is reduced. It will be noted that there is little change in the viscosity until the pressure is reduced to about 1,000 pounds per square inch, at which point further reduction in pressure causes rather rapid increase in the viscosity. Therefore, it is highly essential to maintain reservoir pressure if wide spacing and minimum number of wells is desired.

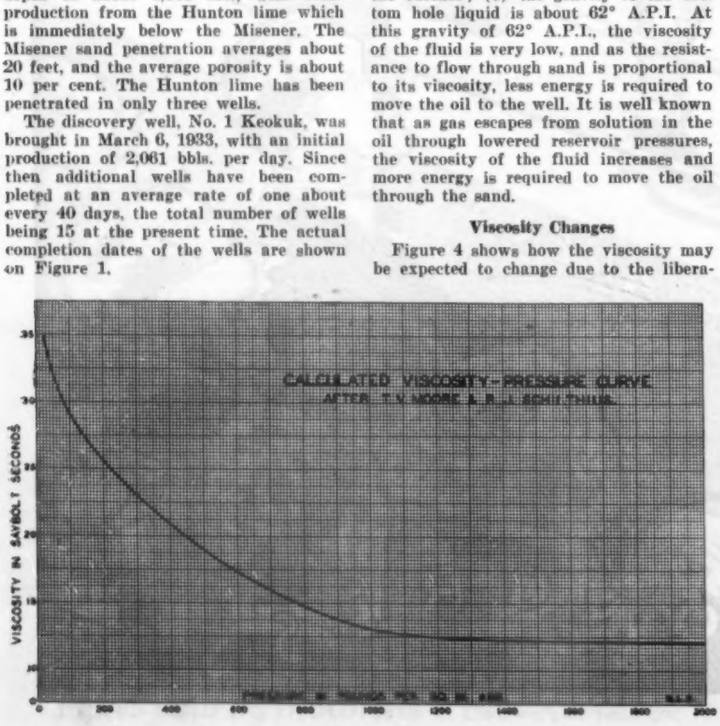


Figure 4

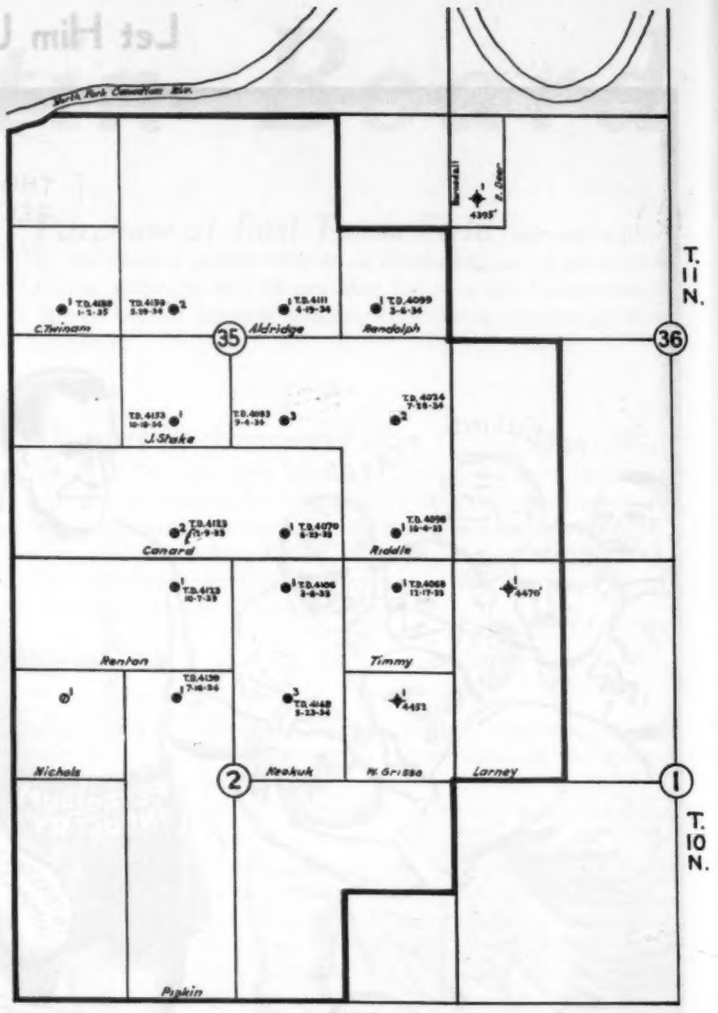


Fig. 1—Keokuk Falls Pool—Community No. 28—Seminole County, Okla.

Analysis by low temperature fractionation of the bottom hole liquid showed its hydrocarbon composition to be as given in Table 1.

TABLE 1

	Liq. vol. %
Methane	6.4
Ethane	5.4
Propane	7.7
Butanes	6.7
Pentanes	4.1
Hexanes and heavier	69.7
	100.0

Although the wells could produce their monthly allowable in just a few days, they are being produced at low rates about 20 days per month. This is done to maintain uniform water encroachment and to prevent a waste of reservoir energy. Flowing tests indicated that at high rates the bottom hole pressure is reduced to the point where considerable gas comes out of solution in the sand and by-passes the oil, resulting in a produced gas-oil ratio considerably in excess of the dissolved gas-oil ratio.

Bottom-Hole Pressures

Figure 2 shows the number of wells, the monthly rate of withdrawal, accumulated gross production, and the bottom hole pressure of the individual wells. From a study of the bottom hole pressure curves, it will be noted that the original bottom hole pressure was 1,820 pounds per square inch and that as the rate of withdrawal was gradually increased up to a maximum of 42,500 bbls. in October, 1933, the bottom hole pressure declined rather rapidly. Then when the rate of withdrawal was reduced in November, the bottom hole pressures gradually increased until April, 1934, when they again began to decline. With the exception of the No. 1 Canard, all of the wells have substantially the same bottom hole pressure, although the rates of production of the individual wells range from about 700 to 5,000 bbls. per month. The bottom hole pressure of the No. 1 Canard dropped off rather rapidly for a period of months, reaching a low of 1,390 pounds in August, 1934, at which time its rate of withdrawal was decreased and the pressure came back up in line with the rest of the pool.

During October and November, 1934, the bottom hole pressures again show a general increase, although the rate of withdrawal is not materially reduced. At the first of each of these months, special open flow tests were made on eight of the wells, thus producing their monthly allowables in a few days and permitting them to be shut in for approximately 30 days each month. Bottom hole pressures taken at the end of each of these 30-day shut-in periods showed a marked general increase, although the increase for the first period was much more marked than was the increase for the second period. The pressure increase during the shut-in period is due either to a water drive which was given an opportunity to manifest itself, or to the fact that the bottom hole pressure of the producing area had time to equalize with that part of the reservoir not yet drilled. It is believed, however, that water drive is the chief cause of the pressure increase.

It is interesting to compare potentials taken in January, 1935, with the previous

potentials which were taken when the wells were completed. These data are shown in Table 2.

It will be noted that the total pool potential is practically unchanged, having declined only 0.5 per cent. Also, most of the larger wells showed an increase, in spite of the long interval between potentials. The old potential on the No. 1 Keokuk, the discovery well, was taken in March, 1933, an interval of almost two years, yet the January, 1935, potential showed an increase of 1.5 per cent, due, no doubt, to errors in taking potentials, but showing without a doubt that the well is as good today as when it was completed, although it has produced approximately 184,000 bbls. of oil.

TABLE 2

Well—	Old potential	Date of old potential	New potential taken Jan., 1935	Per cent comparison
No. 1 Aldridge	1,146	Apr., 1934	992	—13.3
No. 2 Aldridge	2,002	May, 1934	1,698	—15.2
No. 1 Canard	476	June, 1933	204	—57.1
No. 2 Canard	1,695	Dec., 1933	1,163	—31.4
No. 1 Keokuk	2,061	Mar., 1933	2,090	+ 1.5
No. 3 Keokuk	1,860	May, 1934	1,862	+ 0.1
No. 1 Pipkin	1,089	July, 1934	1,245	+14.3
No. 1 Randolph	1,044	Feb., 1934	1,311	+25.6
No. 1 Renton	826	Oct., 1933	1,021	+23.6
No. 1 Riddle	930	Oct., 1933	1,240	+33.3
No. 2 Riddle	1,455	July, 1934	1,459	+ 0.3
No. 3 Riddle	390	Aug., 1934	455	+16.6
No. 1 Stake	369	Oct., 1934	196	—46.9
No. 1 Timmy	631	Dec., 1933	920	+45.8
No. 1 Twinam	200	Dec., 1934	244	+22.0
Total	16,174		16,101	— 0.5

Comparative Results

It is striking and significant to compare these Keokuk Falls potentials with the January, 1935, potentials taken at Lucien and Crescent Fields, Oklahoma. At Lucien the total field potential showed a decline of 18.6 per cent and at Cresent the pool decline was 18.9 per cent since July, 1934, potentials. Although this is only a six-month period, the decline is almost 19 per cent in contrast to Keokuk's decline of only 0.5 per cent in from one to two years' time. Further, Community 28 has produced more oil per pound drop in reservoir pressure during the past year than has either Lucien or Crescent, both of which are larger reservoirs.

The marked contrast between restricted development and production, and unrestricted development and production, may be seen in comparison with the Maud Pool in Ranges 4 and 5e, Township 8n in Pottawatomie County, Oklahoma, about 15 miles southwest of the city of Seminole. As in Community 28, the Maud Pool production is principally from the Misener sand at a depth of about 4,000 feet, with some production from the Hunton lime below the Misener. The two pools are very similar in characteristics. The Maud Pool consists of approximately 1,490 productive acres, with a well density of one to 10 acres, and a Misener sand penetration of approximately 20 feet. The total number of producing wells, the number of flowing wells, the monthly production, and the accumulated production for the Maud Pool is shown on the upper portion of Figure 3, the lower portion showing the equivalent data on the Community 28 block. The Maud Pool was discovered in 1928 and development at a rather rapid rate started in November of that year. The monthly rate of production increased from about 23,000 bbls. in October, 1928, to a maximum of 1,130,000 bbls. in February, 1929, a period of only four months. After February, 1929, in spite of the fact that additional wells were being hurriedly completed, the monthly rate of production declined sharply, indicating that the reservoir energy had been dissipated very quickly by the wells first drilled which were allowed to produce without restriction. Comparing the number of flowing wells with the total number of wells, it will be noted that from February, 1929, on, the number of flowing wells decreased very markedly, in spite of the fact that additional wells were being completed. The flowing life of the wells was very short and wells drilled only a few months after the pool was opened did not flow at all, indicating early dissipation of reservoir energy.

In contrast to this, all the wells in the Community 28 block are still flowing, almost two years after the pool was opened, and the potential of the first well (the No. 1 Keokuk) is as high today as when it was completed in March, 1933. Obviously, in the Maud Pool, only those wells producing at full capacity for the first few months when the pool was in its prime enjoyed the natural energy of the reservoir. This energy was soon used up, to the detriment of the later wells, making it not only necessary to produce the later wells by expensive artificial means, but also materially decreasing their ultimate recovery. Clearly such practice was unfair to the many operators and royalty owners whose properties were developed after the first rush.

Quick Recovery

Approximately 40 per cent of the ultimate recovery from the Maud Pool was produced by natural flow during 10 per cent of the life of the pool, whereas at Community 28, it is expected that at least 75 per cent of the ultimate recovery will be produced by natural flow, and if the water drive is effective it is quite likely that it will be produced almost to depletion by natural flow. In the Maud Pool, 149 producing wells were completed as compared with a probable total of 25 or 30 in the Keokuk Pool. Yet the recovery at Maud is estimated at approximately 74,000 bbls. per well as compared with an estimated recovery of 300,000 bbls. per well at Keokuk, Community 28.

Production records show that water was produced in the Maud Pool early in its life, and the amount of water has greatly increased, indicating that quite likely there would have been an effective water drive had the production rate been restricted early and the flowing life of the wells could have been extended over a period of years, instead of months.

Comparison of the lifting expense of the two pools, although they are only estimated, shows that although the total lifting cost for the Maud Pool is $1,015,000 more than that for Community 28,

(Continued on Page 21)

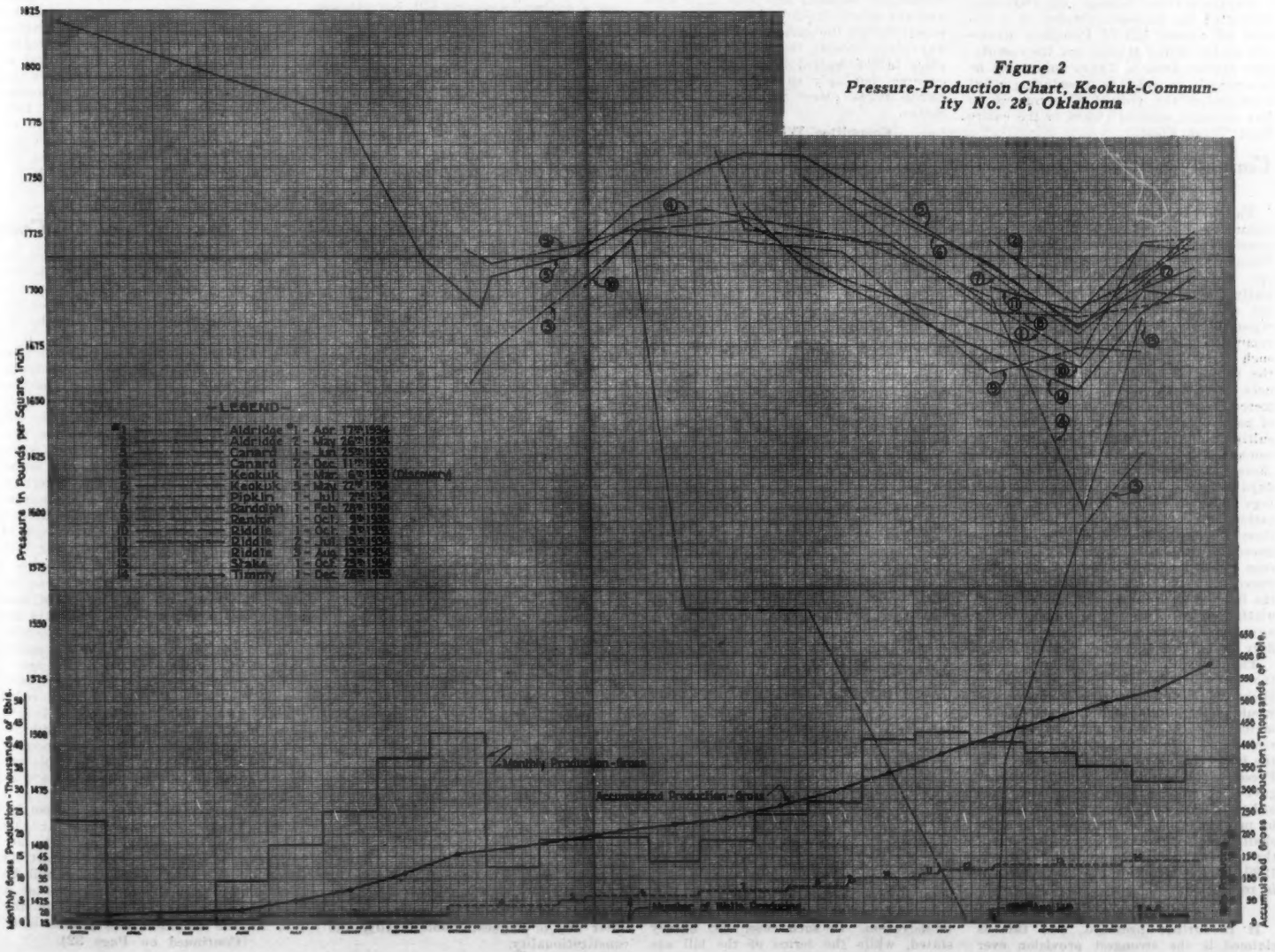

Pressure in Pounds per Square Inch
Monthly Gross Production - Thousands of Bbls.
Accumulated Gross Production - Thousands of Bbls.
Monthly Production-Gross
Accumulated Production-Gross
Number of Wells Producing
-LEGEND-
1 - Aldridge #1 - Apr. 17th 1934
2 - Aldridge #2 - May 26th 1934
3 - Canard #1 - Jun. 25th 1933
4 - Canard #2 - Dec. 11th 1933
5 - Keokuk #1 - Mar. 6th 1933 (Discovery)
6 - Keokuk #3 - May 22nd 1934
7 - Pipkin #1 - Jul. 2nd 1934
8 - Randolph #1 - Feb. 28th 1934
9 - Renton #1 - Oct. 9th 1933
10 - Riddle #1 - Oct. 9th 1933
11 - Riddle #2 - Jul. 15th 1934
12 - Riddle #3 - Aug. 15th 1934
13 - Stake #1 - Oct. 22nd 1934
14 - Timmy #1 - Dec. 28th 1933

Figure 2
Pressure-Production Chart, Keokuk-Community No. 28, Oklahoma

Connally Bill Changed as Federal Control or U. S. Purchase Urged

By HUGH D. MALLON
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Feb. 12.—Prospects now are that a bill, designed to stop the interstate shipment of hot oil will be passed by the House of Representatives within the next day or two, a measure to accomplish this having been favorably reported to the House by the Committee on Interstate and Foreign Commerce.

The House Interstate Commerce Committee meeting, scheduled for this morning, was called off to allow the Cole subcommittee more time in which to iron out constitutional objections to the proposed draft of the House substitute for the Connally bill. Meetings are scheduled for tomorrow by the Cole group. Expectations are that bill will be ready tomorrow evening and immediately introduced in the House.

Representative Disney of Oklahoma presented his proposed version of a federal oil control bill to President Roosevelt at the White House, and Representative Martin Dies of Texas announced he is seriously considering introducing a bill authorizing the federal Government to buy outright mineral rights to the entire East Texas Field.

Connally Bill Changed By the Cole Committee

The bill which the House Interstate Commerce Committee is reported to be considering differs materially from the Connally bill recently passed by the Senate. In the Connally bill it was specifically stated that interstate shipment of hot oil was prohibited, but the bill as reported by Representative Rayburn's committee states that whenever, and at such times as the President finds that the supply of petroleum and the products thereof moving in interstate commerce is so excessive as to cause a lack of parity between supply and demand resulting in an undue burden on interstate commerce in petroleum and the products thereof, he shall, by order, effective 10 days after its issuance, declare such findings and prohibit the interstate transportation of petroleum and the products thereof from any state, if they are produced or withdrawn from storage in excess of the amounts permitted to be produced or withdrawn from storage under the laws of such state, or under any regulation or order prescribed thereunder by any board, commission, officer or other duly authorized agency of such state.

The Connally bill would have placed the law permanently upon the statute books of the federal Government, and would have prohibited interstate commerce in oil or its products, produced in violation of state laws, for all time, but the House bill provides that whenever the President finds that the condition which gave rise to the issuance of any such order no longer exists he shall so declare by proclamation, and thereupon the order shall cease to be in effect. In any event the law will cease to exist on June 1, 1936, by the terms of the law, unless it is re-enacted.

Would Confiscate "Hot" Oil

It is further provided, and this is claimed is the strongest provision ever suggested for this measure, that all oil which is shipped in interstate commerce in violation of this law shall be confiscated by the federal Government. This is the first time it has ever been proposed that the Government confiscate the product, and it is claimed that, if enacted, it will prove more effective in curbing hot oil shipments than the prohibition itself.

Besides the confiscation of the oil a fine of not more than $1,000 is provided, with the alternative of six months in prison, or both fine and imprisonment may be imposed in the discretion of the court. These penalties will be imposed on any person "knowingly violating any such order" as above.

A definition of "interstate commerce" for the purposes of this act will be included. This term it is stated means "commerce between any point in a state and any point outside thereof, or between points within the same state but through any place outside thereof, or from any place in the United States to a foreign country, but only so far as such commerce takes place within the United States.

Committee Widely Apart

All members of the subcommittee, at executive sessions of the full committee, expressed their individual personal views, which, according to Representative Rayburn, chairman of the full committee, were entirely individual, each member having a different opinion on the subject.

One member, it is understood, maintained that a broad, strict federal control bill be passed; another member favored enactment of the Connally bill as passed by the Senate; a third did not want any control, and a fourth member, while inclined to favor the Connally bill, did not commit himself on any measure. The attitude of the fifth member was not divulged.

Quick action in getting the bill to a vote in the House of Representatives is expected, as arrangements have been made with the Rules Committee to issue a special rule which will insure its immediate consideration. Whether the special rule will also prohibit any amendments except amendments agreed to by the committee is not known, but such rules have in the past been issued. The rule will, however, give this measure the right of way over all other matters before the body, and will assure a voted in the shortest possible time.

Disney Bill Would Make Federal Control Supreme

Representative Disney's bill provides for a federal board to allocate, at stated intervals, crude oil quotas for shipment in interstate commerce, consideration being given in arriving at these allocations to national supply and demand, as well as to imports. The board would be given power to fix the amount of oil that could be imported. Under its terms the Federal Government would have no power, or authority, to operate within any state unless the states failed to comply with the quotas set by the federal administration. In such case, Mr. Disney stated, while the terms of the bill are broad enough to allow federal authorities to fix the amount to be shipped in interstate commerce from each field, or pool, the bill provides that interstate shipments can be stopped entirely until the state gets back into line with the federal order.

If the states set a state allowable higher than the federal figure, Mr. Disney stated, the same thing might be applied, complete stoppage of all shipments in interstate commerce. It is his contention that state agencies would have to allocate on an equitable ratable basis to all fields, pools and wells within the state to avoid having such allocations set by the federal authorities.

Mr. Disney contended that the bill is not a production control bill, but primarily, and exclusively, for control of interstate commerce.

It is provided that a board composed of five members, be appointed by the President to administer the act. The Secretary of the Interior would be an ex officio member of the board, with four additional members to be appointed.

The bill was presented to the President for his consideration, and it is understood that a copy has been sent to the Attorney General asking his opinion upon its legality. If approved by the Attorney General and approved by the President it will be introduced in the House by Mr. Disney, but if the President does not approve its terms, or refuses to give it his backing, Mr. Disney has said it will be placed "in the wastebasket."

Suggests the Government Buy the East Texas Field

As one method of stabilizing the oil industry, and to remove the objections of producers, landowners and royalty owners that they are being forced to pay for a national conservation policy, Representative Dies is considering introducing into the House a bill authorizing the federal Government to purchase the entire mineral rights to the East Texas Field.

Under his plan this field could be made a petroleum reserve for the military forces of the country, any development taking place on the field could be rigidly enforced by the federal Government, insuring orderly and efficient development of the field, and at the same time act as a stablizer on the industry. It is his contention that through the ownership of this field the Government could insure maintaining the price of oil at a point where a reasonable profit could be made by the industry, while at the same time assuring the consumers of petroleum products of reasonable prices. Control of this field, he says, could be used as a weapon by the Government to reach these ends by controlling production, raising or lowering it as the occasion might warrant. This could be done in an entirely constitutional and legal manner in this way, he argues, while control in any other way is of questionable legality and constitutionality.

Mr. Dies said in explaining the provisions of the measure: "Efforts of officials of state and federal governments to insure orderly development have been beset with constitutional objections, state's right arguments, and the argument of landowners and producers who say that they should not bear the entire cost of a conservation policy. Under this plan the owners of the oil receive immediately the value of his products. The Government under this plan can constitutionally prescribe the necessary regulations to insure true conservation and orderly development of the field."

He said he could not visualize any constitutional method by which the federal Government could control the production of oil within the states, pointing out that nowhere in the federal Constitution is any power conferred on the federal Government to conserve the natural resources of the country. He proposes that the federal Government pay a reasonable price for the oil reserve of the field, which would be commensurate with the market price of the oil, less cost of production. In round figures, he said, the cost would be about $2,000,000,000.

Extension of the NRA May Include Oil Code

Legislation to extend the life of the National Industrial Recovery Act is now almost ready for submission to Congress, it is believed. This matter has been under consideration for some time by the President and his advisers, and it is now rumored that a definite decision has been reached by President Roosevelt.

The President will ask for a two-year extension of the act in almost its identical form as regards labor, but there will probably be some relaxing of the provisions in the act, and in various codes, of the governmental control over industry. Price fixing, it is almost certain, will be doomed, except in some isolated cases, such as bituminous coal, where it is claimed such provisions have been of great help. However, price fixing will in no event spread to other industries.

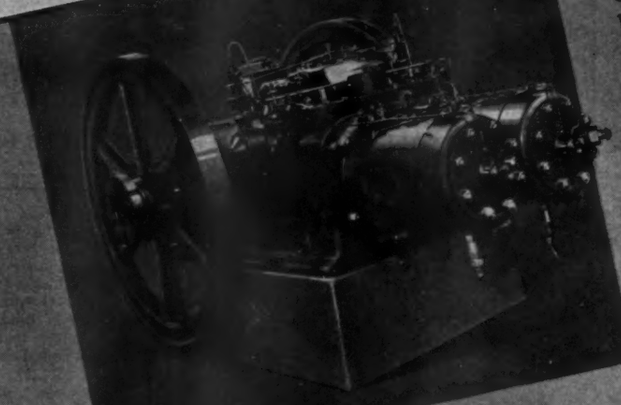
The licensing power which was allowed to lapse in the original act by nonuse is not expected to be included in the extension in any form. It is generally believed that such powers are not necessary in the administration of the act.

Production control features, it has been learned, will be dropped from all codes except the natural resource codes. It will only be included in those natural resource industries which have a present surplus, or which, if such control was dropped, might soon find themselves with a surplus.

Labor, it is rumored, is one reason for pushing this legislation along at this time. It has been said that if the administration waits too long to start its drive for NRA extension labor will be more likely to insist on inclusion of a 30-hour week for all industry in the bill. As the situation now stands labor

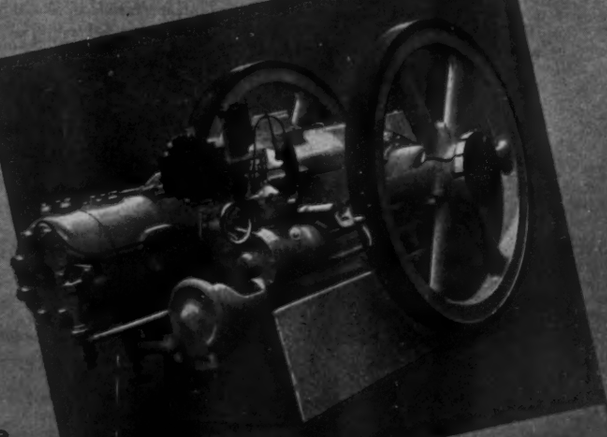
(Continued on Page 32)

All Diesels are Economical
These are *Simple* and *Reliable*



Left — The Cooper-Bessemer Type G-AW twin-cylinder Diesel rated 100 H. P. Has two-cycle simplicity. Can be converted to a gas engine.

Below — The Cooper-Bessemer Type G-AO single-cylinder, two-cycle Diesel rated 45 H. P. This engine can be converted to operate on gas.

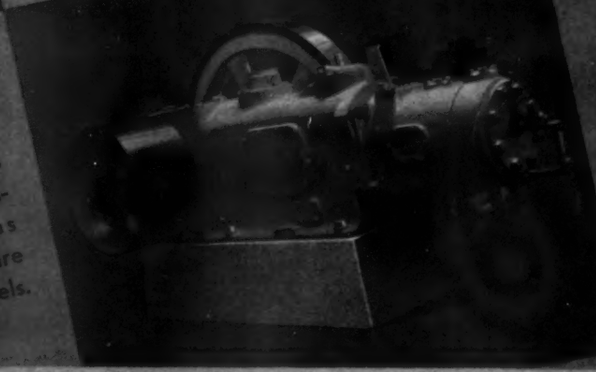


Cooper-Bessemer designed these Diesels to meet the special requirements of the oil fields.

The first requirement of a Diesel pumping engine is reliability. But, aside from that, these engines are so simple that no Diesel experience is required to operate them.

These engines will start in the coldest weather and are built for twenty-four hour continuous operation. Low maintenance costs are assured by such features as box type main frame, Timken main roller bearings, die forged crankshafts, drop forged connecting rods and fully automatic lubrication.

Write or call any of our branch offices for complete information on Cooper Bessemer oil field Diesels. 25 to 1200 H. P.



Right — Type G-AO equipped with one heavy flywheel and belt pulley. This single has the same modern construction features as the larger twin. Both are cold starting full Diesels.

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Substantial Increase in Domestic Demand

By C. O. WILLSON

NEW YORK, Feb. 11.—Complete data on 1934 crude oil production and refinery operations compiled by the Bureau of Mines substantiate the trends apparent in earlier reports which showed that 1934 brought a substantial increase in demand for most products with improvement in the domestic operating situation from several angles. The accompanying two tables were prepared so that the reader could readily compare 1934 operations with those of 1933 by products and also compare 1934 with the peak demands of previous years.

The Government's figure on demand for all oils which includes benzol produced outside the oil industry, gives a total figure of 1,034,633,000 bbls., the first year since 1931 that it has passed the 1,000,000,000-bbl. mark. It is 93.8 per cent of the peak year of 1929. Figured in barrels daily, the 1934 demand was 2,834,610 bbls., a gain of 6 per cent, or 162,800 bbls. daily over the average of 2,671,800 bbls. for 1933. Only part of this gain in demand was supplied by increased production and it was necessary to draw on storage for a total of 39,050,000 bbls. This shows that total inventories were reduced at the average rate of 105,000 bbls. daily during the year which in effect means that substantial inroads were made on stocks which have been considered excessive. These reductions coupled with the increases in demand and the elimination of top heavy production, have been the basis for the predictions of recent weeks that 1935 would see a gradual improvement in prices with the ending of the unsatisfactory earnings of the past four years.

Turning to the detailed reports on crude oil production and refinery operations which many statisticians prefer as a basis for interpretation to the Government's "total all oils" data, the bureau's figures for 1934 on crude oil production and demand show a healthier situation than prevailed the three previous years. With a small increase in domestic production and imports the total supply figure on crude oil for 1934 is practically the same as in 1933. This situation in the face of a 4 per cent gain in demand permitted withdrawal of more than 17,000,000 bbls. of crude oil from storage.

The two outstanding developments of 1934 in the demand for finished products, were the new peaks established in the domestic requirements for motor fuels and kerosene. The Government's report shows that refiners in 1934 shipped 406,269,000 bbls. of motor fuels to domestic

(Continued on Page 37)

1934 DEMAND FOR PETROLEUM PRODUCTS COMPARED TO PEAKS OF PREVIOUS YEARS IN THE UNITED STATES

(Data in 42-gallon barrels)

Products—	Peak year	Total for peak year	1934 pct. of peak year
Total all oils	1929	1,103,203,000	93.8
Crude to stills	1929	987,708,000	90.4
Motor Fuels (Gasoline)			
Total demand	1930	460,375,000	93.6
Domestic demand	1931	403,418,000	100.7
Export demand	1930	65,575,000	37.8
Kerosene			
Total demand	1925	61,181,000	87.4
Domestic demand	1925	39,969,000	108.3
Export demand	1919	23,536,000	41.6
Fuel Oil and Gas Oil			
Total demand	1929	448,263,000	80.0
Domestic demand	1929	409,112,000	81.0
Export demand	1927	47,391,000	60.2
Lubricating Oils			
Total demand	1929	34,469,000	76.2
Domestic demand	1929	23,609,000	78.3
Export demand	1928	11,023,000	68.8

Total demand equals domestic demand plus exports for the peak year.

Crude Oil and Refinery Situation Summarized—1934-1933

Supply and Demand—Crude Oil (Bbls.)

	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Indicated domestic demand‡	Exports	Stocks refinable crude Dec. 31
1934	942,400,000	959,180,000	17,220,000	1.8	909,345,000	33,055,000	918,057,000	41,123,000	337,085,000
1933	937,549,000	921,962,000	*15,587,000	*1.6	905,656,000	31,893,000	885,378,000	36,584,000	354,305,000
Increase, 1934	4,851,000	37,218,000	.....	....	3,689,000	1,162,000	32,679,000	4,539,000	†17,220,000
Increase, 1934	0.5%	4.0%	.....	....	0 4%	3.6%	3.7%	12.4%	†5.1%

Supply and Demand—Refinery Products—Motor Fuel (Bbls.)

	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Domestic demand	Exports	Stocks Dec. 31§
1934	423,455,000	431,088,000	7,633,000	1.7	423,454,000	1,000	406,269,000	24,819,000	51,661,000
1933	407,947,000	406,324,000	*1,623,000	*.4	407,932,000	15,000	377,003,000	29,321,000	59,294,000
Increase, 1934	15,508,000	24,764,000	.....	....	15,522,000	†14,000	29,266,000	†4,502,000	†7,633,000
Increase, 1934	3.8%	6.1%	.....	....	3.8%	.....	7.7%	†15.3%	†12.8%
Kerosene									
1934	53,480,000	53,760,000	280,000	0.5	53,480,000	.....	43,969,000	9,791,000	6,277,000
1933	48,777,000	47,452,000	*1,525,000	*3.2	48,977,000	.....	38,493,000	8,959,000	6,557,000
Increase, 1934	4,503,000	6,308,000	.....	....	4,503,000	.....	5,476,000	832,000	†280,000
Increase, 1934	9.2%	13.3%	.....	....	9.2%	.....	14.2%	9.2%	†4.2%
Gas Oil and Fuel Oil									
1934	329,694,000	359,950,000	30,256,000	9.1	325,235,000	4,459,000	331,410,000	28,540,000	110,113,000
1933	322,593,000	336,907,000	14,102,800	4.4	316,439,000	6,154,000	316,344,000	20,563,000	123,004,000
Increase, 1934	7,101,000	23,043,000	.....	....	8,796,000	†1,695,000	15,066,000	7,777,000	†12,891,000
Increase, 1934	2.2%	6.8%	.....	....	2.7%	†27.5%	4.7%	38.8%	†10.5%
Lubricating Oil									
1934	26,264,000	26,081,000	*183,000	*.7	26,264,000	.....	18,497,000	7,584,000	7,213,000
1933	23,776,000	25,370,000	1,594,000	6.7	23,775,000	1,000	17,152,000	8,218,000	7,030,000
Increase, 1934	2,488,000	711,000	.....	....	2,489,000	.....	1,345,000	†634,000	183,000
Increase, 1934	10.4%	2.7%	.....	....	10.4%	.....	7.8%	†7.7%	2.6%
Petroleum Wax (Lbs.)									
1934	502,526,000	438,765,000	*63,761,000	*14.5	468,720,000	33,806,000	239,661,000	199,104,000	136,136,000
1933	504,417,000	601,012,000	76,595,000	19.1	469,560,000	34,857,000	353,243,000	247,769,000	68,833,000
Increase, 1934	†1,891,000	†162,247,000	.....	....	†840,000	†1,051,000	†113,582,000	†48,665,000	67,303,000
Increase, 1934	†0.3%	†27%	.....	....	†0.2%	†3%	†32.1%	†19.5%	97.7%

*Excess supply. †Decrease. Note—Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments. ‡Crude oil only. §Includes natural gasoline.

Crude Oil Runs to Stills and Total All Oils (Bbls.)

	Total imports§	Total exports§	Total crude to stills	Nat. gasoline production	% Gasoline yield from crude oil‡	Total supply all oils*	Total demand all oils*	Stocks all oils Dec. 31
1934	48,421,000	114,513,000	893,302,000	36,217,000	46.6	995,583,000	1,034,633,000	563,163,000
1933	45,394,000	106,727,000	861,254,000	33,810,000	46.5	986,278,000	975,215,000	602,213,000
Increase, 1934	3,027,000	7,786,000	32,048,000	2,407,000	....	9,355,000	59,418,000	†39,050,000
Increase, 1934	6.6%	7.3%	3.7%	7.1%	....	0.9%	6.0%	†6.5%

*Total all oils includes oil, refined products, natural gasoline and benzol. †Decrease. ‡Includes natural gasoline blended at refineries. §Includes crude oil and refinery products. In case of gas oil and fuel oil and wax, imports include only products for domestic use. All data based on Bureau of Mines reports.

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February Refinery Runs Higher Than in January but Less Than Year Ago

By W. T. ZIEGENHAIN

Mid-Continent refinery crude schedules have been increased for February to require a total of 451,805 bbls. daily. This average is the composite of estimates made early in the month by the individual plant operators but may be found short if injunctions now pending hearing in East Texas should be decided in favor of the railroads and refiners there.

As the present estimate stands, the Mid-Continent refining area is operating at a rate slightly under that of a year ago, but substantially higher than in January. The increase in the past month has been accounted for principally in East Texas where runs have jumped from 32,000 bbls. daily in January to 53,000 in February. Thus the great bulk of the 26,000 bbls. increase for all plants in the area is accounted for.

In addition to East Texas, Kansas refiners show a substantial increase in operations, the group reporting runs totaling 112,310 bbls. daily compared with 100,640 bbls. in January. Southwest Texas, West Texas and Oklahoma reported smaller increases while North Louisiana, North Central Texas and Arkansas show decreases. The principle factor in the large decline in the Louisiana total is the temporary shutting-down of the Spartan Refining Co.'s plant at Shreveport.

East Texas

At the present moment East Texas refiners are watching two important developments. In the one instance they see the Independent Refiners Marketers Corp. in the final stages of organization and the object of this corporation will be to orderly market the gasoline and other products manufactured in the East Texas area. The corporation will buy and sell only oils made from legally produced crude and an adequate market seems to be assured through major refining and marketing companies who have already indicated a willingness to co-operate in every way.

If the rigid enforcement of the restrictions continues, most of the refineries in the field will be forced to remain idle and with the orderly marketing of the products of the operating plants it will be possible to maintain a better price structure throughout the entire Mid-Continent area.

Such a move is necessary to avoid shutting down many plants in North Central Texas, Oklahoma and West Texas, now operating at a loss. Excess or distress gasoline is available in these areas in increasing amounts and stocks of motor fuel have been mounting rapidly in the past month throughout the country so that it becomes quite apparent that relief must be given the territory in some immediate and practical manner. Since the newly formed corporation proposes to move the East Texas production from the Mid-Continent by way of the Gulf Coast for final disposition along the East Coast and in the export market, definite good may accrue to the Mid-Continent.

Mid-Continent Refinery Crude Runs

Average Daily Crude Runs (Barrels)

(Advance estimate compiled by Oil and Gas Journal)

	1931	1932	1933	1934	1935
January	478,795	405,910	399,405	448,360	426,070
February	470,125	411,280	407,125	456,619	451,805
March	449,634	401,155	423,445	465,680	.....
April	407,391	419,391	441,000	458,220	.....
May	510,540	436,160	470,460	457,165	.....
June	567,915	440,765	479,987	459,908	.....
July	588,840	433,255	525,845	477,012	.....
August	500,545	427,710	518,510	501,750	.....
September	588,105	430,430	526,740	499,830	.....
October	472,190	401,995	495,756	500,755	.....
November	480,440	408,180	481,335	500,445	.....
December	456,525	416,275	434,275	440,735	.....

Operations by Refinery Districts

	Feb. dly. crude capacity	Feb. dly. crude runs	Jan. dly. crude runs	Feb. dly. increase
Arkansas	38,550	17,850	18,150	300*
East Texas	231,800	52,880	31,890	20,990
Kansas	180,950	112,310	100,640	11,670
North Central Texas	108,580	33,790	36,710	2,920*
North Louisiana	55,450	22,175	31,800	9,625*
Oklahoma	286,000	141,800	140,555	1,245
Southwest Texas	28,300	16,100	14,245	1,855
West Texas and Panhandle.	125,820	54,900	52,080	2,820
Total	1,055,450	451,805	426,070	25,735

*Decrease.

The other factor that is being watched is the shifting of responsibilities between first the state and federal enforcement offices and then among the various officers of the state. Some refiners in East Texas still feel there is a chance for the East Texas group to gain more liberal treatment at the hands of the state and that the time will soon be ripe to bring pressure. The pressure referred to would be in the form of "a reminder of campaign promises" according to one refiner who is owner of an idle plant.

Marketing Distress Material

In summary, it might be said that adequate control of Mid-Continent refinery operations is being definitely revealed despite the jump in the East Texas runs in February, that a sound, practical plan of marketing distress material is under way and removal of the material from the immediate market should aid in establishing a higher refined oil price structure throughout the Mid-Continent.

New Construction

One of the most important refinery construction jobs started this month is the 2,500 bbl. combination cracking and topping unit being built in the East Texas Field by Sylvester Dayson. The Pioneer Oil & Refining Co. is enlarging its lubricating oil plant at Somerset, Texas.

The Skelly Oil Co. is installing two additional fractionating towers on its crude unit, at the Eldorado, Kansas, plant, and the Dickey Refining Co. is adding a debutanizer column on its vapor recovery plant at McPherson, Kans.

With only reasonable assurance refined oil prices could be held at a reasonably profitable level, many refinery improvement programs would be instituted.

OKLAHOMA

Company and location—	Daily capacity	Aver. daily runs— February	January
Anderson-Prichard Oil Corp., Cyril	6,000	4,150	3,500
Altitude Petroleum Corp. (J. H. Peacock Refining Co.) Oklahoma City	3,000	(*)	(*)
Associated Petroleum Corp., Allen	8,000	(*)	(*)
Barnsdall Oil Co., Barnsdall	6,000	3,500	3,500
Barnsdall Oil Co., Okmulgee	10,000	5,000	2,800
Bell Oil & Gas Co., Grandfield	4,500	2,100	2,100
Black Gold Refining Co., Oklahoma City	2,500	1,000	1,500
Century Petroleum Corp., Oklahoma City	2,500	(*)	(*)
Champlin Refining Co., Enid	16,000	6,000	6,000
Continental Oil Co., Ponca City	30,000	22,000	20,000
Crescent Refining Co., Holdenville	1,000	(*)	(*)
Cushing Refining & Gasoline Co., Blackwell	1,700	1,500	1,500
Cushing Refining & Gasoline Co., Cushing	4,500	2,500	2,500
Deep Rock Oil Corp., Cushing	10,000	9,000	9,000
Eason Oil Co., Enid	5,000	2,500	2,500
Empire Oil & Refining Co., Okmulgee	4,000	2,400	2,100
Empire Oil & Refining Co., Ponca City	12,000	7,800	6,450
Globe Oil & Refining Co., Blackwell	7,500	(*)	6,000
Government Refining Co., No. 1, Oklahoma City	1,000	(*)	(*)
Government Refining Co., No. 2, Oklahoma City	3,500	(*)	(*)
Government Refining Co., No. 3, Seminole	500	(*)	(*)
Hanger Refining Co., Oklahoma City	1,000	(*)	120
Johnson Oil Refining Co., Cleveland	6,000	4,500	4,500
Major Petroleum Products Co., Oklahoma City	3,000	450	450
Marathon Oil Co., Bristow	5,000	2,500	2,550
Mid-Continent Petroleum Corp., West Tulsa	40,000	18,000	18,000
Monarch Refining Co., Oklahoma City	1,000	300	(*)
Paramount Refining Co., Oklahoma City	2,000	800	900
Peppers Gasoline Co., Oklahoma City	500	150	150
Phillips Petroleum Co., Okmulgee	6,000	5,400	4,840
Pure Oil Co., Muskogee	9,000	7,600	6,700
Rock Island Refining Co., Beckett	6,000	3,200	3,200
Sinclair Refining Co., Sand Springs	3,000	2,700	2,700
Sinclair Refining Co., West Tulsa	6,000	(*)	(*)
Sun Oil Co., Yale	5,000	2,000	2,000
Sunray Oil Co. (C. E. Wright, receiver), Allen	7,000	2,000	2,000
Texas Co., West Tulsa	15,000	12,000	12,000
Tide Water Oil Co., Drumright	15,000	7,000	7,000
Triangle Producing & Refining Co., Oklahoma City	1,000	450	700
Wilcox Oil & Gas Co., Bristow	5,000	2,000	2,000
Wirt Franklin Petroleum Corp., Ardmore	4,000	1,300	1,265
Yale Oil Corp., Yale	2,000	(*)	(*)
Total	286,000	141,800	140,555

*Shut down.

KANSAS

Company and location—	Daily capacity	Aver. daily runs— February	January
Barnsdall Oil Co., Wichita	4,000	3,000	2,000
Derby Oil Co., Wichita	8,000	6,000	4,000
Dickey Refining Co., McPherson	5,000	2,000	1,000
Eldorado Refining Co., Eldorado	5,000	2,700	2,500
Falcon Refining Co., Inc., Great Bend	700	500	500
Globe Oil & Refining Co., McPherson	10,000	10,000	7,500
Golden Rule Refining Co., Wichita	1,500	(*)	(*)
Kanotex Refining Co., Arkansas City	12,000	4,000	4,500
Kansas Gas & Gasoline Co., Winfield	500	150	100
Kreuger Refining Co., Laton	150	50	50
National Refining Co., Coffeyville	6,500	4,000	4,000
Petroleum Products Co., Chanute	1,000	1,000	1,000
Phillips Petroleum Co., Kansas City	18,000	11,800	11,290
Security Petroleum Co., Chase	3,100	(*)	(*)
Shell Petroleum Corp., Arkansas City	20,000	15,000	12,000
Sinclair Refining Co., Coffeyville	12,000	8,500	7,500
Sinclair Refining Co., Argentine	9,500	7,000	6,000
Skelly Oil Co., Eldorado	23,000	15,000	16,000
Socony-Vacuum Oil Co., Inc., Augusta	16,000	15,000	14,000
Standard Oil Co. (Indiana), Neodesha	20,000	4,500	4,500
United Oil & Refining Co., Hutchinson	1,500	(*)	(*)
Vickers Petroleum Co., Potwin	3,500	2,100	2,200
Total	180,950	112,310	100,640

*Shut down.

NORTH LOUISIANA

Company and location—	Daily capacity	Aver. daily runs— February	January
Acme Refining Corp., Monroe	100	50	50
Bayou State Oil Corp., Houston	750	175	100
Griswold Refining Co., Shreveport	1,000	1,000	700
Louisiana Oil Refining Co., Shreveport, Bossier	30,000	18,000	18,000
Pelican Refining Co., Converse	100	50	50
Shoreline Oil Co., Lewis	1,000	900	900
Spartan Refining Co., Shreveport	12,000	(*)	10,000
Stanolind Oil & Gas Co., Vivian	3,500	2,000	2,000
Texas Co., Shreveport	7,000	(*)	(*)
Total	55,450	22,175	31,800

*Shut down.

(Continued on Page 31)

Question—do you know why these refiners have recently signed Dubbs license contracts?

HOME OIL & REFINING CO., - - - - *Great Falls, Mont.*
BLACK GOLD REFINING CO., - - *Oklahoma City, Okla.*
CUSHING REFINING & GASOLINE CO., - *Cushing, Okla.*
LLOYD REFINERIES, LTD., - - - *Port Credit, Ontario*
COMET OIL REFINERIES, LTD., - - *Montreal, Quebec*
NAPH-SOL REFINING CO., - - - - - *Muskegon, Mich.*
FREEDOM OIL WORKS, - - - - - - - - - *Freedom, Pa.*
UNITED REFINING CO., - - - - - - - - - *Warren, Pa.*
WILSHIRE OIL CO., - - - - - - - - - *Los Angeles, Cal.*

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DERRICKS SUBSTRUCTURES HANGERS WALKING BEAMS SAMSON POSTS JACK POSTS BULL AND CALF WHEEL POSTS
WHEELS PITMANS IMPROVED BEARINGS CROWN BLOCKS PORTABLE PUMPING UNITS CLEAN-OUT MACHINES WINCHES

Japan's Naval Expansion Limited by Powers Controlling Oil Supply

By EDWIN L. JAMES
Managing Editor, the New York Times*

The pending negotiations at Nanking between the Japanese and General Chiang Kai-shek and his lieutenants appear to amount to an effort by Tokyo to extend by treaty a political and economic tutelage over China. That there is involved an auxiliary policy to that under which Manchuria was taken from China by force of arms is indicated by the Japanese statement that if China cannot see the Far Eastern situation as they do they can make no guarantees against a repetition of the incidents wnich occurred in Manchuria and in Shanghai.

The diplomatic activity of the Japanese at Nanking, plus the recent military activity on the Chahar border, tends to show the virility of the Japanese foreign policy in eastern Asia and gives to the foreign offices of other interested powers a reason for watchfulness. It is logical to believe that an extension of Japanese dominance in the Far East might have on the commercial interests of other countries an effect similar to that which has been observed in Manchukuo.

It has now become quite plain that the Japanese fleet is an instrument of the foreign policy of the country. In seeking parity with the United States and Great Britain the Japanese wish to insure themselves against interference in their Far Eastern policy. Therefore any extension or development of the Japanese policy must have a direct influence on the naval discussions which may be soon resumed in preparation for the conference which is to be held the latter part of this year.

Question of Fuel

Experts are pointing out that Japanese achievement of effective naval parity with the United States and Britain is not solely a matter of tons and guns. Indeed, it may prove true that it is less a matter of building than it is of fuel.

Japan produces slightly more than one-tenth of the petroleum and petroleum products which she uses normally. The total production of the Japanese Islands proper is slightly more than one-half of the peacetime needs of her navy.

This means that the operation of a larger navy involves a dependence on foreign oil supply. Japanese naval development must be considered in connection with the navies of the United States and Great Britain. It is unavoidable that Japan's foreign oil supply be considered in relation to those two countries—plus Russia.

It is striking that Japan's oil supply depends on the attitude of the three countries mostly affected by the extension of her foreign policy. To put it bluntly, if those three countries did not wish Japan to get any oil from outside, Japan could not get it. It is this factor which constitutes the weakest point in the naval strategy of the Japanese.

Japanese oil consumption for civilian purposes is put at 1,800,000 tons annually. These figures are a matter of official record. There are no official figures for the navy's use of oil, but it is considered safe to place it at 400,000 tons a year. This makes a total annual consumption of 2,200,000 tons.

To meet this demand Japan produces 242,000 tons a year. In addition, she gets from Formosa 35,000 tons and from Manchukuo 25,000 tons. This makes a total of 302,000 tons, or about one-seventh of her peacetime consumption, which Japan gets from sources she controls.

There is an oil supply in the northern end of the island of Sakhalin, in Russian-owned territory. A Japanese company operates these fields, leasing the wells from the Russians. The company enjoys government subsidies, and this oil goes for the use of the navy. The Sakhalin production runs about 200,000 tons.

Supply From United States

Taking into consideration these sources, from which Japan gets some 500,000 tons of oil a year, her consumption represents a balance of 1,700,000 tons imported. Approximately 60 per cent of this balance, or about 1,000,000 tons annually, is imported from the United States. The Standard Oil companies have most of this business.

The remaining 700,000 tons is imported largely from the Dutch East Indies. The business is in the hands of the Asiatic Petroleum Co., which is owned in equal parts by British and Dutch interests.

Naturally there are no exact figures commonly available as to the amounts of fuel oil which the Japanese have in storage. It is understood that the foreign companies generally keep about three months' supply in storage on Japanese soil. This would indicate about 400,000 tons available for government seizure if needed. In addition, it is reported that the Japanese navy has in storage 400,000 tons, representing a year's peacetime supply. It is not without interest that one of the provisions in the plan for a government oil monopoly in Manchukuo had to do with the storage at Darien of three years' normal supply. Naturally, in time of need, this would have been available for the navy.

It is estimated by experts that in time of active warfare the Japanese navy would consume oil at the rate of 800,000 tons a year. There would appear a fair probability of a comparable amount being in storage in Japan. However, in the event of war, it would be impossible to cut off entirely civilian consumption of oil, so that it would seem fair to say that the Japanese would, in the event of hostilities under present conditions, have a six months' supply of fuel for their warships.

Control of World's Oil

Presuming that a war with another naval power would be a long-drawn-out affair, it seems plain that the Japanese would be at a terrible disadvantage if there were any interference with their imports of oil. Fuel oil seems to be one of the few things that cannot be made from the soya bean. It is the opinion of oil men who have studied the problem that the oil shale in Manchuria is not promising as a large source of petroleum. It is not of common knowledge that worth-while sources of oil lie ahead of the Japanese troops in eastern Asia.

In case of war, it stands to reason the Japanese could assure themselves of the Sakhalin supply by seizing the oil fields, if Russia made any difficulties. But, outside of that, it does not seem a political probability that Russia would transport oil across Siberia to supply the Japanese. Even in the event of a war between Japan and the United States or between Japan and Britain, the chances of the Japanese navy getting supplied from Russia would not be bright.

That brings one down to a consideration of Japan's obtaining oil for a war against another naval power.

Take the possibility of a war between Japan and Britain. The British could dissipate at once any possibility of Japanese oil from Mesopotamia, by ship from southern Russia, from Persia or from India. Even if there were not the factor of a 50 per cent ownership of the Dutch supply by British sources, the British navy, operating from Singapore, would have small difficulty in cutting off the supply from the Dutch East Indies. That would leave the supply from the United States, plus supplies from Mexico and Venezuela, the latter two sources being physically under the potential control of the United States. Then would arise the issue of what claims we would make to our right to send oil to Japan in our ships, it being taken for granted the British would declare it contraband.

Britain and America

With respect to the possibility of a war between Japan and the United States it is plain that Japan would get no oil from this country, from Mexico or from Venezuela. That would leave the issue of the supply from the Dutch East Indies and involve the issue of how much the British would seek to protect their right to sell oil to Japan, presuming we would declare it contraband.

With respect to the theoretical possibility of a war between Japan on the one side and the United States and Britain on the other—the answer is that no such war would probably ever take place. If it did, the British and the Americans could perhaps wait until the Japanese navy did enough cruising around and it would be over.

In any event, the Japanese fuel problem indicates the scope of potentialities of any degree of British-American co-operation on Far Eastern policy and on naval policy. A Japanese realization that the two powers stood together on the naval issue and could stand together in the Far East might bring a modification of Japanese plans. It seems reasonable to say that the full fruition of Japanese naval plans depends on the absence of co-operation between Washington and London.

*Published by permission, from the New York Times.

President Byles Makes Sharp Rejoinder to Ickes' Attack on the Oil Industry

NEW YORK, Feb. 13.—Axtell J. Byles, president of the American Petroleum Institute, took issue last night with views expressed by Secretary of the Interior Harold L. Ickes, federal oil administrator, in the current issue of the Saturday Evening Post. Mr. Byles said:

"The Secretary makes an attack upon the good faith of the entire American petroleum industry, condemning it in sweeping generalities and ignoring its great contribution to the progress of the country.

"The industry admits faults common to rapid growth but feels that it has rendered a unique service to the American people. It has aided the unparalleled development of automotive transportation to which the public owes so much. No person has been charged unreasonable prices or in any way handicapped in his utilization and enjoyment of the products of petroleum. The industry is today meeting the gasoline requirements of the nation out of half the volume of crude oil which would have been necessary to meet such requirements 17 years ago. To have produced last year's gasoline requirements by the processes in use in 1917 it would have been necessary to have run 1,866,000,000 bbls. of crude oil. In 1934 the industry actually supplied the gasoline requirements by running 893,000,000 bbls. of crude oil. That is real conservation of a limited natural resource.

"The retail price per gallon at which this gasoline was sold to the public in 1934 was just half the retail price per gallon which it was necessary to charge 15 years ago. This reduction in cost to the consumer, made possible by increased efficiency on the part of the industry, was largely defeated by cumulative federal, state, county, and municipal taxes which on gasoline and motor lubricants alone amounted to over $754,000,000 last year.

"There has been some waste incidental to the production of crude petroleum, particularly in the earlier stages of development but such waste has been mainly due to the law of capture which was imposed upon the industry by the courts. This constitutes a fundamental problem which representative members of the industry long have struggled to eradicate, developing proration and unit operation as partial correctives. Certainly, the oil industry cannot justly be charged with the appalling gas waste in the Panhandle Field or failure to enforce proration in East Texas."

Mr. Byles said he did not agree with the Secretary's views concerning the futility of an interstate compact, and expressed serious doubt as to the legality of remedies proposed by the Secretary. He added:

"Federal control of the oil business offers nothing that the industry, with the aid of states wherein crude oil production lies, cannot itself more effectively provide. On the contrary, regimentation from Washington would stifle the far-flung individual activities necessary to sustain this dynamic enterprise and, in the long run, would lead to the creation of a shortage of and so high a price for motor fuel that it would work grave injury to the American public. It is impossible to operate the petroleum industry as a public utility and threats to attempt to do so may delay progress toward the consummation of those things which both the Secretary and the industry desire to attain in the public interest."

ART SAUNDERS DIES

Art Saunders, head of the land department of the Atchison, Topeka & Santa Fe Railroad for the western district, died at Holbrook, Ariz. He was well known among the oil men of the Rocky Mountain area.

McCormick-Deering Power Unit pumping for the Lion Oil & Refining Co., Kilgore, Texas.

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McCORMICK-DEERING INDUSTRIAL POWER

Substantial Results Are Derived from Unit Plan

(Continued from Page 11)

the cost per barrel is not excessive. However, the investment for the Maud Pool is so great that the total cost per barrel is brought up to $1.09 as against 29 cents per barrel for Keokuk. This remarkable saving is due to the fact that the Keokuk Falls Pool is a community block, which means that all unnecessary costly and competitive drilling is eliminated. The elimination of drilling through wider spacing will give efficient recovery only when controlled reservoir pressures and rates of production are possible. Unitization is the first and necessary step in efficient pool control.

Expenses and Investment

A comparison of the estimated expense and investment of the two pools is given in Table 3.

TABLE 3

	Total cost	Cost/bbl.
MAUD:		
Expense	$1,990,000	$0.18
Investment	9,983,000	0.91
Total	$11,973,000	$1.09
KEOKUK:		
Expense	$975,000	$0.13
Investment	1,175,000	0.16
Total	$2,150,000	$0.29

OIL AND GAS POWER MEETING

The National Oil and Gas Power meeting will be held in Tulsa, May 8-11, at the Mayo Hotel, it was announced by Ralph Miller, chairman of the Oil and Gas Power Division of the American Society of Mechanical Engineers. The meeting will be held jointly with the Mid-Continent section arranging one-half of the program, dealing with Diesel problems of the oil fields. L. H. Morrison, of New York, will arrange the other half of the technical program covering the Diesel field generally.

There will be the usual exhibit of oil engine parts, materials and accessories. The committee in charge of the exhibit is Harte Cooke, chief engineer, McIntosh & Seymour Corp.; Lester Goldsmith, consulting engineer, Atlantic Pipe Line Co.; Lee Schneitter, plant betterment engineer, Electric Bond & Share Co., and J. F. Eaton, of the Jarecki Manufacturing Co., Tulsa. The local arrangements committee, of which J. F. Eaton is chairman, is planning interesting inspection trips to Diesel plants in the oil country.

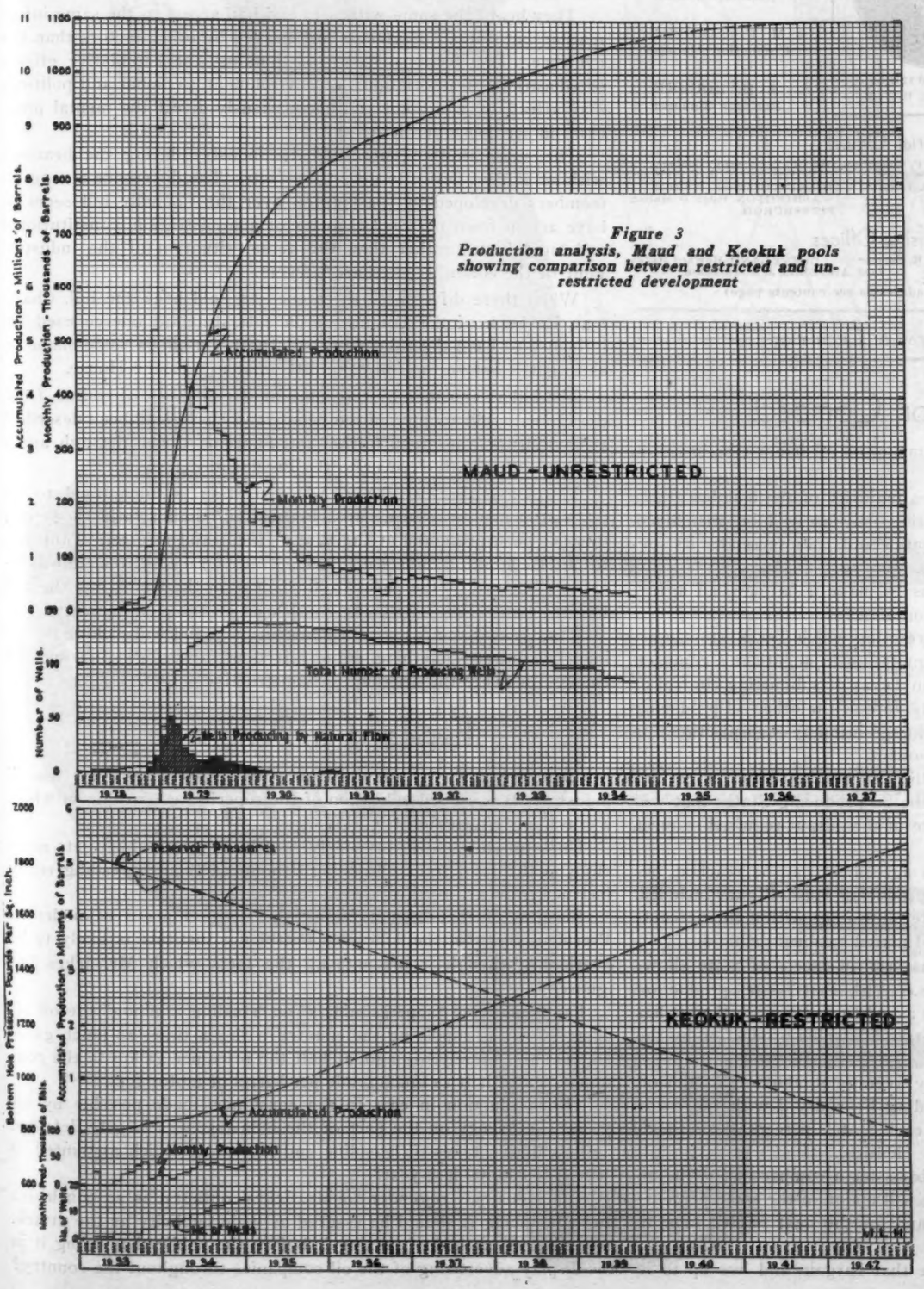

Figure 3
Production analysis, Maud and Keokuk pools showing comparison between restricted and unrestricted development

Socony-Vacuum Provides for Plant Investments

NEW YORK, Feb. 11.—To take care of replacements and provide improvements in operating facilities large capital expenditures were necessary in 1934 and will continue to be necessary for some time in the future, J. A. Brown, chairman of the executive committee of the Socony-Vacuum Oil Co., Inc., explained to stockholders of the company, in connection with the election of the board of directors in deciding to take dividend action semiannually instead of quarterly.

"Necessary capital expenditures, always large, were particularly great in 1934 and it is expected that they will be unusually heavy for some time," Mr. Brown said in a brief statement covering 1934 operations. "This is due in part to being unable to defer any longer, important improvements and replacements and in part due to trends in the industry requiring new investments in plants and production to protect the future of your business."

The Socony-Vacuum company has made important expenditures over the past year in all branches of its operations including those of subsidiaries. Its marketing facilities have been expanded and the company has maintained its position as a producer and transporter of crude oil.

Probably the most outstanding capital outlay of the year which is representative of investments necessary "to protect the future of your business," mentioned in Mr. Brown's statement, was the construction of two large solvent extraction plants at refineries for the manufacture of lubricating oils. One of these units is located at the Paulsboro, N. J., refinery of the Socony-Vacuum Oil Co., Inc., and the other at the Beaumont, Tex., refinery of the Magnolia Petroleum Co., a subsidiary. With the completion of these plants the company introduced these solvent refined motor oils to consumers with satisfactory results. The company also placed in operation a chlorex extraction plant at its Olean, N. J., refinery. The Socony-Vacuum company and its refining subsidiaries have also made other important improvements at its refineries, including cracking facilities with further work scheduled for 1935. The company at this time has plans for the construction of a refinery in Italy.

For several years the company has not been on a definite dividend basis. After the payment of 10 cents a share on March 15, 1933, dividends were suspended until December 15, 1933, when 25 cents a share was paid. Last year the company paid four dividends of 15 cents a share each—on March 15, June 15, September 15, and December 15. The dividend declared will be paid on March 15 to stock of record of February 20.

For 1933, Socony-Vacuum reported consolidated net earnings of $22,545,462, after all charges and reserves, equal to 71 cents a share on 31,708,457 capital shares then outstanding. Cash and marketable securities at the end of 1934 amounted to $80,447,328. In 1933 the company distributed 35 cents a share in dividends, compared with 60 cents a share last year.

ALBERTA GEOLOGISTS

CALGARY, Alberta, Feb. 9.—At its annual meeting held here recently, the Alberta Society of Petroleum Geologists elected Dr. T. B. Williams of Calgary president for 1935. Other officers are: Vice president, R. V. Johnson; secretary-treasurer, Col. F. M. Steele; business representative, H. M. Hunter. A vote of thanks was tendered the retiring executive, headed by G. R. Elliott of Turner Valley.

Papers on various geological topics were read by J. S. Irwin, S. E. Slipper, R. M. S. Owen, J. G. Spratt, H. M. Hunter, Dr. R. Willis, and Dr. J. O. G. Sanderson.

A committee was appointed to assist the government in protecting the public from unscrupulous promoters and spurious geologists.

THE OIL AND GAS JOURNAL

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Only Basis for Compact

If there is to be an interstate compact on oil it must be based on agreement, not on force.

Any idea of a compact by which a majority of the member states could compel obedience to its decision may as well be abandoned. Texas will not, no self-respecting State could, thus surrender its sovereign right to order its own affairs.

The very word "compact" means to make a bargain, an agreement. There is no hint of compulsion about it.

That undoubtedly was the interpretation which Texas, stoutly asserting state's rights, put upon the invitation to negotiate a compact. There was no thought or intention in Texas of submitting control of the State's production to the majority vote of the other oil producing States. Texas cannot be cajoled or forced into any such position. It would be a waste of time to talk about it.

The compact which Texas is willing to negotiate and enter into is a bargain or agreement between the oil producing States that will assure to each its proportionate share of the output required to meet the demand.

It is absurd to say that no such agreement can be reached, because, as a matter of record, the oil producing States, Texas included, have been keeping their official State allowables within the percentage of the allocation based on the estimated national demand.

Overproduction in East Texas has been in excess of State allowables as well as Federal allocations. With that illegal production checked, Texas, in a compact, will be asked to do no more than it has been doing right along, setting the State allowable production by the proportionate share of the demand.

A comparison of the actual daily average production of the oil producing States for four weeks ending February 2 with the crude allocations for February shows that each State's percentages on production and allocation are practically identical.

In the light of the record a fair basis for a compact would be an agreement that each and every State will maintain the same percentage of allowable production to demand for the next twelve months as it has been observing.

If the States will severally make that bargain and live up to it within each State there will be no invasion of State's rights, no assault upon the sovereignty of any. The regulation of production within the accepted State allowable will then be up to each individual State.

On that foundation of fair dealing and home rule neither Texas nor any other State can stay out of the compact which is for the good of all, when the alternative is so plainly Federal regimentation with the States reduced to ciphers.

Confusion at Washington

The fact that the five members of the Cole subcommittee of the House Committee on Interstate and Foreign Commerce, who conducted a personal survey of the oil situation, are reported to have reached five different conclusions in regard to oil legislation at this time is not surprising.

They heard the same witnesses and had access to the same information, but human judgments are swayed by other factors than the evidence. Predilections, habits of thinking, the cumulative effects of education, of associations, of environment, personal and political, may affect the viewpoint and unconsciously divert the mental processes in seeking a verdict.

The subcommittee impressed the industry during the hearings with an evident desire to get at the facts. The difference among its members developed in Washington over the Connally bill seem to have arisen from personal theories of administration, constitutional and legal issues rather than the actual situation of the industry. Four of the committeemen are lawyers.

When these differences threatened to hold back the bill, Chairman Rayburn of the Committee on Interstate Commerce used his influence to have the subcommittee report the bill in some shape so as to get it before the full committee and so into the House.

The bill as amended by the subcommittee differs, of course, from the Connally bill adopted in the Senate and has indeed been described as inviting another rebuff from the Supreme Court through again delegating legislative power to the President.

Meanwhile the Petroleum Administration is understood to be favoring a new bill setting up a Federal oil administrative body and this has been presented at the White House and referred to the Attorney General. It may thus develop into a race between the Connally bill passed by the Senate and changed in the House and the full Federal control bill now being considered on the side lines.

Reports that the N.R.A. is to be continued and will include the oil industry unless something definite is done towards stabilizing the business indicate the urgency for constructive action.

Exposing a Denouncer

"Supercriminals" is Administrator Ickes' latest word for the oil industry. It is a good indication of the superheated vacuum in which a crusading propagandist works.

Unfortunately it will be widely read by a public which gets more enjoyment out of some one being denounced than in reading really instructive news.

Because of that human failing the even-tempered rejoinder of President Byles of the American Petroleum Institute is likely to be overlooked though it presents all the facts which Mr. Ickes has ignored.

Far from being "supercriminals" or "stealing a billion" the oil industry today is supplying the country with six times as much gasoline as only a few years ago, at half the price per gallon to the consumer, out of half as much crude per barrel of motor fuel.

"This reduction in cost to the consumer, made possible by increased efficiency on the part of the industry, was largely defeated by cumulative taxes on gasoline and lubricants which amounted to over $754,000,000 last year."

The industry's rejoinder to Mr. Ickes' outburst is so conclusive and convincing it should be assured as wide publicity as the attack. What better method of getting it before the public than using it in the display advertising of the oil companies throughout the country?

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NEWS FROM FOREIGN LANDS

CHINA

Netherland India, United States and Russia, in the order named, furnish the bulk of the petroleum products consumed in China, according to a report of the Bureau of Foreign and Domestic Commerce covering the first nine months of 1934. This report for the three leading countries for the nine-month period is summarized in the following table (data in barrels):

NETHERLAND INDIA

	1934	1933
Gasoline	431,000	242,000
Kerosene	693,000	1,102,000
Lubricating oil	20,000	29,000
Fuel oil	1,308,000	1,226,000
Total	2,632,000	2,599,000

UNITED STATES

	1934	1933
Gasoline	226,000	267,000
Kerosene	1,175,000	1,684,000
Lubricating oil	156,000	148,000
Fuel oil	527,000	509,000
Total	2,084,000	2,608,000

RUSSIA

	1934	1933
Gasoline	35,000	36,000
Kerosene	257,000	518,000
Fuel oil	31,000	.....
Total	323,000	554,000

In addition, Netherland India imported 27,619,000 pounds of petroleum wax for period under consideration in 1934 and 28,243,000 pounds in 1933. Imports of petroleum wax from the United States the first nine months of 1934 totaled 8,083,000 pounds and 11,394,000 pounds for the same period in 1933. British India imported 1,374,000 pounds the first nine months of 1934 and 561,000 pounds in 1933. Wax imports from other countries totaled 2,826,000 pounds the first nine months of 1934 and 546,000 pounds in 1933.

These data show that Netherland India increased its imports into China in 1934 while those of the United States and Russia decreased. The United States is still the largest supplier of kerosene and lubricating oils, with Netherland India leading in the case of gasoline and fuel oil.

The following table gives the imports by products into China for the first nine months of 1934 and 1933 (data in barrels):

	1934	1933
Gasoline	692,000	545,000
Kerosene	2,365,000	3,418,000
Lubricating oil	188,000	191,000
Fuel oil	1,975,000	1,752,000
Paraffin (lbs.)	39,890,000	40,534,000

This table shows that kerosene is still the principal petroleum product sold in China, although the above table indicates a decline of 45 per cent in imports for 1934. The kerosene and wax are both used for illumination.

GERMANY

An 8,000-bbl. combination topping and cracking Winkler-Koch unit will be built at Petroleumhafen in Germany by the "Nitag," construction to start in the near future. The plant will include a Lachman vapor treater and the products of the plant will be finished as they come from the unit. Sufficient cracking will take place within the unit to provide a 68 octane blend of the combined gasoline streams. J. C. Bradley, L. S. Wright and Cash Brisby have been sent to the job site by the Winkler-Koch company, the three men having sailed from New York in the past week.

The plant will process East Texas crude for the time being and supplies will be stored over the next few months to permit operation of the plant near its capacity as soon as construction is finished.

Crude oil production in Germany in 1934 increased 34 per cent over 1933 according to a government report. The 1934 production totaled 312,852 tons or 6,000 bbls. (42-gallon barrels) daily. All the gain amounting to approximately 1,500 bbls. daily is accounted for by the increased output in the Hanigsen-Obershagen-Nienhagen area, the other two main producing areas in Germany showing decreases in 1934.

The increased production in the Nienhagen area is the result of greater drilling during 1934. Modern drilling equipment is being used and the government is aiding the operations of some through subsidiary companies. Another substantial increase in production is expected in 1935. The following table gives the production by fields for 1934 (data in tons):

1934—	Hanigsen, Obershagen, Nienhagen	Wietze-Stein forde	Oberg-Olheim Eddesse	Total
January	14,256	4,386	2,114	20,756
February	12,852	4,112	1,805	18,799
March	15,249	4,475	2,004	21,728
April	18,141	4,270	1,742	24,153
May	16,702	4,362	1,665	22,729
June	18,708	4,343	1,589	24,640
July	22,793	4,438	1,604	28,735
August	24,554	4,434	1,385	30,423
September	22,088	4,072	1,178	27,338
October	25,716	4,289	1,510	31,515
November	24,355	4,406	1,594	30,355
December	25,289	4,237	2,155	31,081
Total	240,733	51,874	20,245	312,852
1933	144,979	53,804	33,906	232,689

The Gewerkschaft Elwerath has discovered production in the government financed well No. 44 (Wachtel 5) in the neighborhood of Hoheneggelsen-Molme between the cities of Hildesheim and Braunschweig. The well yields a daily production of approximately 30 tons (225 bbls.), although it has not as yet reached the main oil-bearing horizon, which is supposed to exist in the neighborhood of Hoheneggelsen. With respect to its quality the oil discovered corresponds to the Oberg oil. During the period 1928 to 1933 the Gewerkschaft Elwerath, whose predecessor had surrendered this acreage after having drilled two dry holes in 1927, has not only carried on extensive geophysical investigations in this territory, but has drilled 50 structure test wells to depths of 60 meters, and five deep tests to depth of 450 to 1,400 meters. Two of these wells were drilled with government subsidy. The last one, that is well No. 44, has now come in as a producer. With respect to the extension and significance of this new field only additional development work can give the proper information. The Gewerkschaft Elwerath has spent more than 1,000,000 marks for development operations in this territory of Hoheneggelsen-Molme.

AUSTRIA

Drilling near Vienna, Austria, over the past year has resulted in increased gas production but so far oil has not been discovered in commercial quantities. Plans for continued drilling have been completed for 1935.

One complete well has shown a natural gas production of 80,000 cubic feet daily and another 200,000 cubic feet daily. A pipe line has been completed to Vienna where the gas is being used for industrial purposes. It is hoped to materially increase this gas production during 1935 as well as discovering oil-bearing sands.

RUMANIA

Crude oil production in Rumania in December totaled 750,000 tons or 5,250,000 bbls. This daily average of 170,000 bbls. is practically the same as in November. Final figures on 1934 production have not been released but the total will be approximately 60,000,000 bbls., an increase of 15 per cent over the 1933 production.

The six leading producing companies in December were as follows (data in barrels):

Astra Romana	1,061,700
Steaua Romana	702,370
Concordia	693,270
Phoenix Oil	639,400
Romana-Americana	522,430
Creditul-Minier	476,900

FRENCH GUIANA

The government of French Guiana (South America) has announced that effective March 22 all petroleum products refined at refineries in France can be imported duty free. Other French colonies are considering similar action to aid in developing the French refining industry.

Pump station at Pendopo, Sumatra, of N. V. Netherlandsche Koloniale Petroleum Maatschappij, subsidiary of Standard Vacuum Oil Co.

U. S. S. R.

The only products for which the foreign demand in the U.S.S.R. is increasing are lubricating oil and petroleum wax according to the latest available reports. Modern facilities for the manufacture of these products have been installed in Russia over the past two years and part of the output of these plants are now available to foreign buyers.

Exportations of the principal Russian refinery products decreased in 1934 based on reports covering the first nine months of 1934 and 1933. Crude oil exports increased from 152,939 tons the first nine months of 1933 to 165,111 tons for the same period in 1934. The following table gives the exportations for the first nine months of the two years (data in tons):

	1934	1933
Gasoline	879,492	1,078,870
Lubricating oil	209,980	188,970
Gas oil	428,000	464,000
Fuel oil	965,709	1,231,385
Asphalt	24,300	26,680
Paraffin wax	9,380	3,400
Miscellaneous oils	700	260
Total	3,049,000	3,693,000

France continues to be the largest buyer of Russian petroleum products. The principal importers of crude oil and refinery products for the first nine months of 1934 and 1933 were as follows (data in tons):

	1934	1933
France	580,786	572,800
Italy	480,000	807,800
Spain	389,900	273,000
Great Britain	340,200	264,500
Germany	309,200	364,500

JAPAN

An English translation of specifications for petroleum products including methods of testing as promulgated by the Japanese engineering standards committee have been completed. They are available through the Japanese Bureau of Industrial Rationalization of the Department of Commerce and Industry, Tokyo.

The products included in the translation are domestic gasolines, aviation gasolines, illuminating oils, gas oils, Diesel oils, spindle oils, ice machine oils, dynamo oils, turbine oils, machine oils, axle oils, cylinder oils, marine engine oils, petrolatum and vaseline.

Four grades are recognized in the case of domestic motor gasolines. It is required that cracked gasolines including blends shall be indicated. The following table gives the distillation requirements for the four grades:

PER CENT OFF (MAXIMUM)

Temp.—	No. 1	No. 2	No. 3	No. 4
70° C.	8%	4%	2%	5%
100° C.	30%	20%	15%	20%
150° C.	75%	65%	55%	50%
95% distilled	190° C.	205° C.	215° C.	225° C.

The corrosion test must be negative for all grades. The No. 4 is a cracked product.

PERSIA

Persian crude oil production for December totaled 578,508 tons according to a preliminary report. This production, which amounts to approximately 111,000 bbls. daily, is substantially less than the daily average for 1934.

The revised production figure for the first 11 months of 1934 is 6,958,864 tons or 48,712,048 bbls. By adding the December total the yearly figure is 7,537,372 tons or 52,761,604 bbls. This is a daily average of 144,500 bbls. for the year, an increase of approximately 10 per cent over 1933. The final yearly figure for 1934 will be announced this month.

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In Photograph, reading from Left, at Top

Standard Bronze Globe Valve 125 lbs. W. S. P.

Heavy Bronze Globe Valve, Composition Disc—150 lbs. W. S. P.

Extra Heavy Bronze Regrinding Globe Valve—200 lbs. W. S. P.

Extra Heavy Hard Bronze Globe Valve 250 lbs. W. S. P.

Standard Bronze Gate Valve 125 lbs. W. S. P.

Medium Heavy Bronze Gate Valve 150 lbs. W. S. P.

Extra Heavy Bronze Gate Valve 250 lbs. W. S. P.

Standard Bronze Horizontal Check Valve—125 lbs. W. S. P.

Medium Bronze Regrinding Swing Check Valve—150 lbs. W. S. P.

Standard Bronze Vertical Check Valve 125 lbs. W. S. P.

Extra Heavy Bronze Steam Cock 250 lbs. W. S. P.

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Group 3 Refinery Market Views New East Texas Gasoline Agency as Holding Much Promise

By T. F. SMILEY

Notwithstanding the melancholy list of hot-oil cures that have been tried out and abandoned in East Texas, lively hope was expressed that the latest one, the Independent Refiners Marketing Corp., put into operation this week, might not suffer the fate of its predecessors.

This organization, a centralized agency for the handling of all legally produced gasoline in the East Texas area, is capitalized at $100,000, of which $60,000 has been subscribed. There are at the present time 12 refiners in the agency, each subscribing for $5,000 worth of stock. Others are expected to enter. Any refiner in the area who restricts his operations to legal crude and refinery products may either take stock in the agency or avail himself of its advantages. If he does not enter the corporation he will pay a small commission for its services.

All Shipments to Gulf

The plan comprehends arrangements with large interests by which any or all gasoline produced legally in East Texas will be absorbed. All shipments will be made to the Gulf, chiefly for coastwise movement.

Each company in the agency will elect to dispose of a certain quantity of gasoline each half month, from the first to the fifteenth and from the sixteenth to the end of the month. A canvass of the plants will be made semimonthly to ascertain how much material is thus to be made available. The price will be the regular Group 3 price plus $13 a car freight differential.

A liaison man will keep in touch constantly with the agency and with the companies buying the gasoline. Neil Buckley, who has intimate first-hand knowledge of East Texas conditions through his years as buyer for the Cities Service Export Oil Co., is liaison man for the time being. It is understood he simply has been borrowed for service during the early weeks of the project because of his familiarity with the conditions prevailing and the complete confidence reposed in him by all interests involved. R. N. Cline, sales manager of the Arrow Refining & Producing Co., is his assistant.

Executive Committee in Charge

Pending completion of details and the election of officers, the business of the agency is being conducted by an executive committee, of which M. M. Travis, vice president of the Southport Refining Co., Kilgore, is chairman. The other members are H. B. May, president of Arrow, and C. R. Starnes, president of the Texas Oil Products Co.

F. W. Fischer, active figure in East Texas refinery litigation during the last year, has been engaged as counsel. It was emphasized that Mr. Fischer's legal services will be devoted exclusively to the agency.

Mr. Travis said Monday of this week that the agency already had begun business and that he had received an order that day for 250 cars of gasoline.

It was pointed out that the setup and methods of the co-operative marketing venture were simple and should be effective for the reason that they offered no incentive to cheating.

One form of law violation which has continued to flourish in the East Texas area is that of moving large quantities of illicit gasoline from the refinery to distributing points by truck. It was reported this week that Mr. Fischer would have a bill introduced in the Texas legislature making it possible to revoke the license of any truck found carrying refinery products illegally produced.

It is pointed out that East Texas refiners now are producing about 2 per cent of the country's gasoline. Under the program being put into operation eastern and Gulf Coast refining interests will take most of that 2 per cent. Eastern and Gulf refiners at present produce approximately 40 per cent of the country's motor fuel. Hereafter they presumably will reduce their plant operations sufficiently to produce 38 instead of 40 per cent. But in doing this they will be helping to strengthen and stabilize the whole motor fuel market, benefiting themselves along with others. Also, since the new program should put an end to the shipment of cheap gasoline into the Chicago and other northern areas it may be expected to wipe out many price wars.

While the trade generally was disposed to view the new enterprise as distinctly promising, its hopes have been dashed so often that it apparently has no idea of displaying enthusiasm until concrete results are produced.

Natural Gasoline Off

Natural gasoline continued its downward movement, dropping about a quarter-cent on all grades from the quotations of a week ago. The falling off was said to be seasonal and largely a reflection of the refinery market.

An abnormality observable in the current refinery market lies in the fact that kerosene is commanding a higher price than low-octane gasoline, its high-toned neighbor in the distillation process.

The burning oils, which were manifesting a shaky tendency last week, developed further weakness and lost an eighth throughout the list.

Neutrals were steady. Bright and steam-refined stocks were easy, though it was believed the better market in the East would soon be reflected in Oklahoma. Wax continued listless.

Refined Oil Market Barometer

Attention of refiners and marketers turning to two programs designed to stabilize the gasoline market. One of them is the plan being developed by integrated companies to absorb distress stocks in Oklahoma, North Texas, West Texas and the Panhandle. The other is the co-operative association of East Texas refiners to dispose of that area's legally produced gasoline at the ruling market price. Kerosene scarce and in some areas bringing more than third-grade gasoline. General market quiet.

Mid-Continent.—Gasoline weak. Naturals down. Kerosene scarce. Furnace oils off.

East Coast.—Gasoline and kerosene easier, with price shading possible unless new buying appears. Bright and steam-refined stocks better.

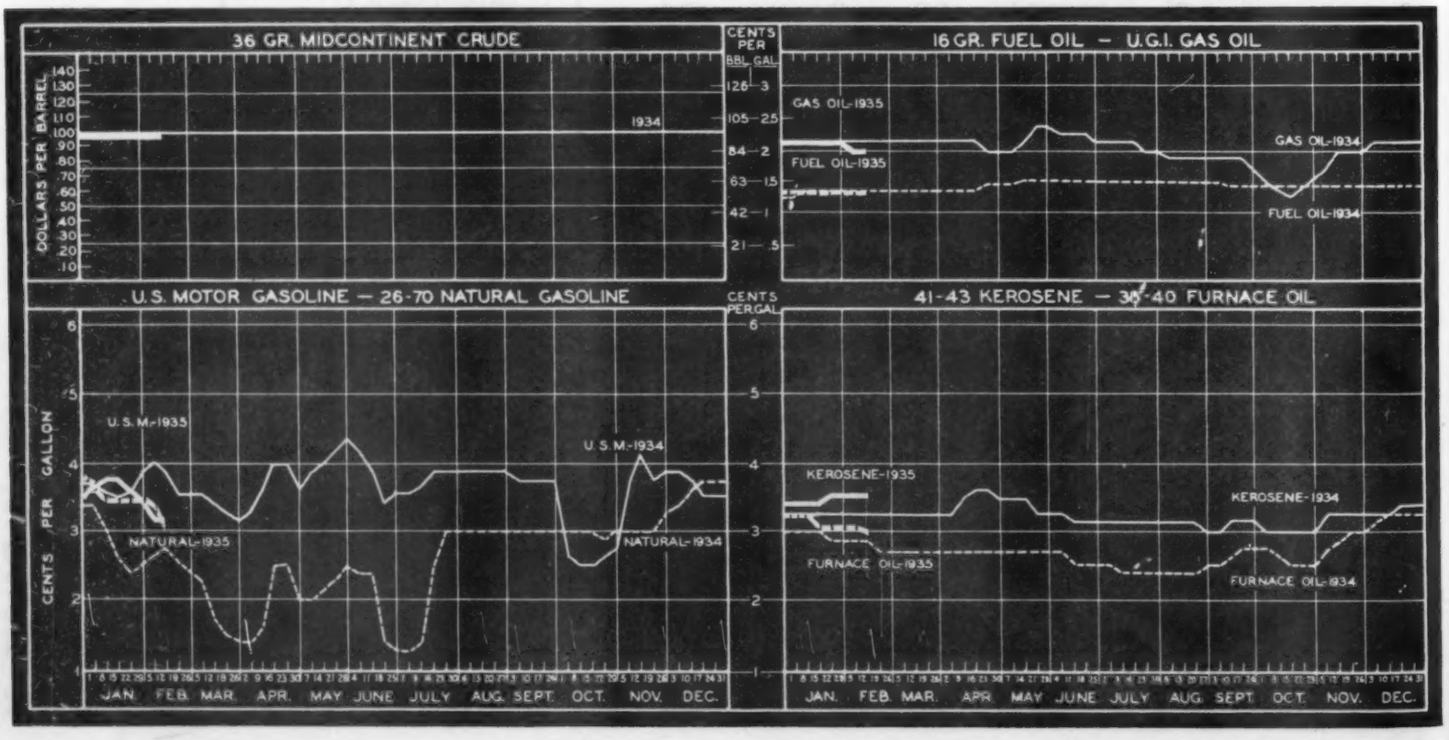
Gulf Coast.—Gasoline somewhat tighter. Kerosene scarce. Gas and fuel oils firm. Price cutting among lubricants.

Pennsylvania.—Bright and cylinder stocks and gasoline up.

California.—Competitive conditions intensified by overproduction of crude and sale of gasoline by non-members of Pacific Coast Agency.

Chicago.—Gasoline a shade firmer, fewer offerings. Kerosene firm Heating oils easy.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



Gasoline and Kerosene Easier on East Coast but Trade Continues Confident Regarding Outlook

By C. O. WILLSON
New York Bureau, The Oil and Gas Journal

NEW YORK, Feb. 11.—Both gasoline and kerosene were easier in this market and also the Gulf Coast over the past week. So far as known both large and small sellers in this immediate territory were maintaining the tank car postings on these products which have been in effect since last month, but it was apparent that more material was available with the possibility of price shading should there not be sufficient buying within the next few days to absorb the supplies available.

The trade generally was not alarmed by these developments. In the case of gasoline it was thought that if it were necessary to cut prices on three or four cargoes now available at the Gulf that the general postings of the major refiners would not be disturbed. Indicative of the confidence in the gasoline situation in this territory was the action of the Socony-Vacuum Oil Co., Inc., and other distributors which advanced the gasoline service station prices in metropolitan New York and adjoining territory one-half cent a gallon. This establishes a 17-cent service station price for regular grade gasoline including 4 cents state and federal taxes in metropolitan New York. This is considered a normal price for gasoline based on present crude and refinery costs.

As explained in these columns last week some gasoline which was released through court orders in Texas is now available at the Gulf Coast. The cold weather of the past month has also slowed up demand and certain independent sources have accumulated supplies aside from those available through the action of the courts. Middle octane gasoline of low endpoint was offered in this market at 4½ cents basis the Gulf last week with the probability that this price could be shaded one-eighth or one-fourth cent with an order.

It is understood that only two or three cargoes are offered at these prices. Those familiar with conditions state that larger quantities will have to be available before this market is threatened. These observers feel that some distress trading is inevitable over the next 30 days, reflecting the slow seasonal demand in the consuming end. At the end of 30 days they predict that the gasoline buying for the main consuming season of 1935 will be under way.

The 6¼-cent kerosene tank car price at most Atlantic Seaboard points and 5 or more cents at the Gulf Coast is apparently serving to increase supplies. A typical situation applying to a refinery operating with Mid-Continent crude oil shows an increase of 2 per cent in kerosene yield based on the crude oil charge. This is accomplished by running to lower endpoint gasolines and cutting deeper into the distillates. The kerosene is worth more than the gasoline and has been much easier to sell over the past few weeks so that the operator is willing to sacrifice gasoline yield to secure a larger output of kerosene. Whether this increased supply will weaken the strong price situation that has prevailed in this territory since early fall remains to be seen. The demand is expected to continue heavy for at least another six weeks.

Export Prices Lower

The export situation in the case of gasoline and kerosene is similar to that in the domestic end. The prevailing quotation on 64-66, 375 endpoint at the Gulf for export is 4¾ cents with buyers assuming that this price could be shaded with orders. It is also believed that a 5-cent kerosene price could be reduced one-eighth or one-fourth cent per gallon. It is said that the unsettled currency situation has tended to dry up foreign buying. Actual spot trading in practically all refinery products, however, was dull before the gold question arose. Movements on contracts by major companies to foreign connections has been normal.

Government Report

The following table gives the production and stocks of East Coast refineries based on the latest available report of the Bureau of Mines (data in barrels):

	Dec., 1934	Dec., 1933	Nov., 1934
Crude oil runs to stills	14,069,000	13,742,000	13,722,000
Gasoline	6,242,000	5,689,000	5,807,000
Kerosene	1,006,000	795,000	879,000
Gas oil and distillate	1,287,000	1,414,000	1,485,000
Residual oils	3,954,000	3,679,000	3,781,000
Lubricating oils	658,000	734,000	637,000
Wax (lbs.)	19,320,000	19,600,000	18,200,000
Coke	11,000	13,800	10,800
Asphalt (tons)	51,700	59,800	59,400
Road oils	1,000	4,000	30,000

STOCKS END OF MONTH

Gasoline*	13,260,000	15,309,000	12,170,000
Kerosene	1,312,000	1,256,000	1,757,000
Gas oil and distillate	5,358,000	3,842,000	6,525,000
Residual oils	7,165,000	3,599,000	7,955,000
Lubricating oils	2,316,000	2,147,000	2,159,000
Wax (lbs.)	57,154,000	18,489,000	53,639,000
Coke (tons)	23,900	27,000	28,000
Asphalt (tons)	95,300	83,200	93,200
Road oils	48,000	92,000	53,000

*At refineries, bulk stations and pipe lines.

Increase Kerosene Yields

This table shows that East Coast refiners the last month of 1934 were running slightly more crude oil to their stills than they were the previous month and also in December, 1933. The increase over December, 1933, was 2.3 per cent or approximately 10,000 bbls. daily.

The most interesting situation reflected in this table is the changes in yields of finished products. The data clearly show the situation previously mentioned in which refiners are increasing their kerosene yelds due to the favorable price situation.

It will be noted that kerosene output was 1,006,000 bbls. in December compared to 795,000 bbls. in December, 1933. Thus kerosene production was increased over 26 per cent with only a 2.3 per cent increase in crude runs to stills. Based on the crude charge the kerosene yield in December, 1934, was 7.1 per cent and in December, 1933, 5.8 per cent. The gain in kerosene yield in December over November was about 1 per cent on the crude charge showing that refiners so far as possible have endeavored to supply the increased demand by changing operations at their plants.

In the case of the December operations that part of the increased kerosene yields were obtained by reducing the yields of distillate as the output of gas oil and distillate decreased. It is possible to increase yields by going deeper into the distillate fraction as well as reducing the gasoline yields. Just what can be done along these lines depends largely on the properties of the crude oil and the fractionating facilities at refineries.

In regard to demand East Coast refiners as shown in the table drew on their stocks for more than 400,000 bbls. in December. This was the period in which two or three refiners in this territory were faced with an actual shortage to supply their current demand. The table shows that while there were withdrawals from storage during December in the case of kerosene, gas oil and distillate and residual oils, the stocks at the end of the year were greater than on the same date in 1933. Stocks of gas oil and distillate were 1,500,000 bbls. greater and in the case of residual fuels the gain was approximately 100 per cent. These figures indicate that supplies of these products will be adequate for the winter season.

Petroleum Wax

The petroleum wax situation shows no improvement. Additions were made to stocks all but one month last year not only in the eastern area but the entire United States. So far as refiners in this territory are concerned production is maintained at normal levels despite a decrease of around 25 per cent in demand. Stocks of wax at the close of 1934 were 300 per cent greater than on December 31, 1933, when they were exceptionally low.

Prices

Domestic gasoline prices in tank car lots for New York delivery are 5¾ cents for low octane, 6 cents for middle octane and 6¼ cents for 65 octane and above. The ethylized regular grades of the major companies are generally quoted at 6½ cents. Prices on all grades for New Jersey delivery are one-fourth cent higher.

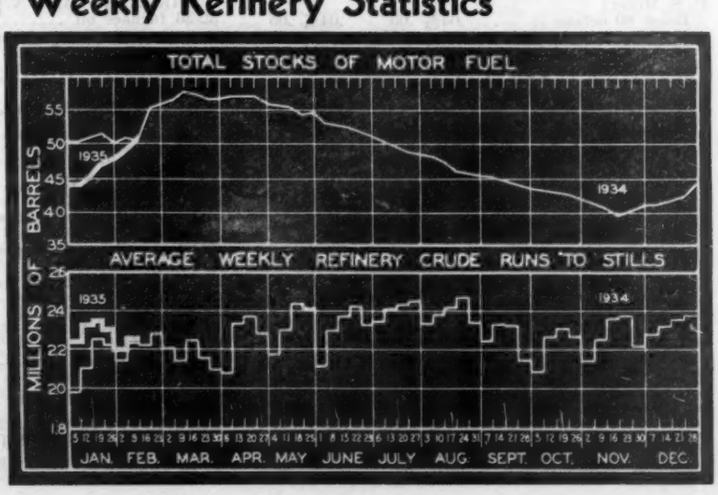
In cylinder stocks, several in touch with the market see a change in conditions as they have prevailed in this and other territories over the past seven or eight months. The demand for steam refined stocks and bright stocks is improving with paraffin base neutrals, which have been scarce, more freely available. This shift in conditions is expected to have more significance from the price end in the near future. At present Pennsylvania bright stocks in barrels for export is quoted as low as 22 cents with 600 flash, 17½ to 18 cents. Pennsylvania neutrals (200-3 color), which have been quoted as high as 37 cents in barrels for export, are now quoted as low as 34 cents. Bulk prices on these products are from 5 to 7 cents per gallon less.

Wax prices are unchanged with a slow demand for both the crude scale and refined grades.

American Petroleum Institute Weekly Refinery Statistics

Week Ending February 9, 1935

	Capacity reporting per cent	Daily crude runs (bbls.)	Finished motor fuel (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	459,000	14,315,000	10,447,000
Appalachian	93.3	87,000	2,068,000	1,012,000
Indiana, Illinois, Kentucky	94.6	305,000	8,775,000	4,285,000
Oklahoma, Kansas, Missouri	83.7	239,000	5,181,000	3,917,000
Inland Texas	47.6	80,000	1,411,000	1,848,000
Texas Gulf	97.7	498,000	6,104,000	8,008,000
Louisiana Gulf	96.4	107,000	1,351,000	3,967,000
North Louisiana and Arkansas	83.7	42,000	262,000	460,000
Rocky Mountain	66.7	37,000	816,000	686,000
California	96.9	421,000	10,469,000	65,028,000
Total United States	89.8	2,275,000	50,752,000	100,558,000



REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasolines

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
U. S. Motor grades:				
Below 63 octane	.03¼	.03½	.03¼	.03½
63-70 octane	.04⅜	.04½	.04¼	.04½
60-62 400 grades:				
Below 63 octane	.03⅜	.03½	.03⅜	.03⅝
63-70 octane	.04¼	.04½	.04¼	.04½
64-66 375	.03¾	.04	.03⅝	.03⅞
68-70 360	.03⅞	.04¼	.03¾	.04
NORTH TEXAS—				
U. S. Motor grades:				
Below 63 octane	.03¼	.03½	.03¼	.03½
63-70 octane	.04⅛	.04¼	.04¼	.04½
60-62 400	.03⅜	.03¼	.03¼	.03½
64-66 375	.03¾	.04	.03⅝	.03⅞
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.04⅛	.04⅜	.04¼	.04⅜
63-70 octane	.05⅜		.05⅜	
60-62 400	.04¼	.04½	.04¼	.04½
ARKANSAS (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.04⅛	.04⅜	.04¼	.04⅜
63-70 octane	.05⅜		.05⅜	
CHICAGO (based on Oklahoma Group 3)—				
U. S. Motor grades:				
Below 63 octane	.03¼	.03½	.03¼	.03½
63-70 octane	.04¼	.04½	.04¼	.04⅝
60-62 400	.03⅜	.03½	.03¼	.03½
64-66 375	.03¾	.04	.03⅝	.04
68-70 360	.04	.04¼	.04	.04¼
Aviation fighting grade	.04⅜	.05	.04⅜	.05
PENNSYLVANIA (inland refineries)—				
58-60 U. S. Motor:				
Below 60 octane	.04½	.04⅝	.04⅜	.04½
60-64.9 octane	.05⅝		.05⅝	
65-70 octane	.06		.06	
68-70 350	.05½		.05½	
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.07	.08	.07	.08
58-60 400	.08	.09	.08	.09
EAST COAST—				
U. S. Motor, below 60 octane:				
*New York	.05⅜		.05⅜	
Baltimore	.05¾		.05¾	
U. S. Motor, 60-64 octane:				
*New York (Bayonne)	†.06		†.06	
Philadelphia	.06		.06	
Boston	.06	.06¼	.06	.06¼
Baltimore	.06		.06	
Charleston, S. C.	.06		.06	
U. S. Motor, 65 and above:				
*New York	‡.06¼		‡.06¼	
Philadelphia	.06¼		.06¼	
Boston	.06¼	.06½	.06¼	.06½
Baltimore	.06¼		.06¼	
Charleston, S. C.	.06¼		.06¼	
GULF COAST (domestic)—				
U. S. Motor:				
Below 60 octane	.04¾	.05	.04¾	.05
60-64.9 octane	.05	.05¼	.05	.05¼
65 octane and higher	.05¼		.05¼	

*All grades of gasoline one-fourth cent less for small barge shipments.
†For New Jersey delivery, 6¼ cents.
‡For New Jersey delivery, 6½ cents.

Naphthas

	Feb. 12		Feb. 5	
PENNSYLVANIA (inland refineries)—				
50-52 (blending)	.04	.04¼	.04	.04¼
52-54 450 (blending)	.04	.04¼	.04	.04¼
54-56 450 (blending)	.04	.04¼	.04	.04¼
50-52 450 (blending)	.04	.04¼	.04	.04¼
CHICAGO (based on Oklahoma Group 3)—				
50-52 450 (blending)	.03½	.04	.03½	.04
Cleaners' naphtha, 56-58 gr., 200 i.b.p., 320 e.p.	.06¾	.07	.06¾	.07
Lacquer diluent, 180 i.b.p., 250 e.p.	.07¾	.08	.07¾	.08
Lacquer diluent, 140 i.b.p., 200 e.p.	.08¾	.09	.08¾	.09
Rubber solvent, 68-70 gr., 100 i.b.p., 300 e.p.	.06¾	.07	.06¾	.07
Stoddard solvent, 300 i.b.p., 410 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
Pet. thinner, 290-300 i.b.p., 415 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p., 330 e.p.	.06¾	.07	.06¾	.07
Petroleum spirits	.05¾	.06	.05¾	.06

Natural Gasolines

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
Grade 26-70	.03⅛	.03¼	.03⅜	.03½
Grade 18-55	.03¾	.04	.04	.04⅛
Low vapor pressure grades:				
14 lb. v.p. (max.)	.04⅛	.04⅜	.04½	.04⅝
12 lb. v.p. (max.)	.04½		.04⅝	.04¾
NORTH TEXAS—				
Grade 26-70	.02⅞	.03	.03	.03¼
Grade 18-55	.03½	.03¾	.03⅝	.03¾
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03¾	.04	.04	.04⅛
12 lb. v.p. (max.)	.04¼		.04⅜	
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
Grade 26-70	.03⅜	.03⅝	.03⅝	.03¾
CALIFORNIA—				
75-85 375	.06½	.06¾	.06½	.06¾

Kerosenes

(All kerosenes water white)

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
41-43	.03½	.03⅝	.03½	.03⅝
42-44	.03⅝	.03¾	.03⅝	.03¾
NORTH TEXAS—				
40-41	.03¼	.03⅜	.03¼	.03⅜
41-43	.03½	.03⅝	.03½	.03⅝
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
41-43	.03¾		.03¾	
ARKANSAS (Ark., N. La. & Miss. del.)—				
41-43	.03¾		.03¾	
PENNSYLVANIA (inland refineries)—				
45	.04⅝	.04¾	.04⅝	.04¾
46	.04¾	.04⅞	.04¾	.04⅞
47	.04⅞	.05	.04⅞	.05
CHICAGO (based on Oklahoma Group 3)—				
41-43	.03½	.03¾	.03½	.03⅝
42-44	.03⅝	.03⅞	.03⅝	.03¾
CALIFORNIA (Pacific Coast consumption)—				
38-40 high burning test	.04¾	.05¼	.04¾	.05¼
NEW YORK (Bayonne, N. J.)—				
41-43	.06¼		.06¼	
GULF COAST (domestic)—				
41-43	.04¾	.05	.04¾	.05

Petroleum Coke

(Prices per ton f.o.b. refineries in Chicago area)
(Refineries will absorb freight to 80 cents a ton)

	Feb. 12	Feb. 5
Pile run	6.00	6.00
Direct from still	7.00	7.00
Egg, nut, pea	8.50	8.50
Lump	8.50	8.50

Furnace Oils and Tractor Fuels

(Zero cold test under 190° flash and good odor)

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
32-36 straw	.02⅞	.03	.03	.03⅛
36-38 straw	.03	.03⅛	.03⅛	.03¼
38-40 straw	.03	.03⅛	.03¼	.03¼
38-40 prime white	.03⅛	.03¼	.03¼	.03⅜
NORTH TEXAS—				
38-40 straw	.03⅛	.03¼	.03¼	.03⅜
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
36-40 furnace oil	.02⅞	.03	.03	.03⅛
ARKANSAS (Ark., N. La. & Miss. del.)—				
32-36 furnace oil	.02⅞	.03	.03	.03⅛
CHICAGO (based on Oklahoma Group 3)—				
32-36 straw	.03⅛	.03¼	.03⅛	.03⅜
38-40 straw	.03⅛	.03¼	.03¼	.03⅜
38-40 prime white	.03¼	.03⅜	.03¼	.03½
NEW YORK (Bayonne, N. J.)—				
No. 1	.06	.06¼	.06	.06¼
No. 2	.04¾		.04¾	
No. 4	.04¾		.04¾	

Gas Oil, Diesel Oil and Fuel Oil

(Gas oil per gal., Diesel and fuel oils per bbl.)

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
32-36 gas oil, cracking stock	.02	.02⅛	.02	.02⅛
U.G.I. gas oil	.02	.02⅛	.02	.02⅛
32-36, zero to 15 gas oil	.02¾	.02⅞	.02¾	.02⅞
28-30, No. 3 burner oil	1.10	1.15	1.10	1.15
26-30, zero to 10 fuel oil	.95	1.00	.95	1.00
24-26 fuel oil	.77½	.80	.77½	.80
20-22 fuel oil	.72½	.75	.72½	.75
Below 16 fuel oil	.60	.62½	.60	.62½
NORTH TEXAS—				
32-36 gas oil, industrial	.02⅛	.02¼	.02⅛	.02¼
22-26 fuel oil	.67½	.70	.67½	.70
Below 20 fuel oil	.60	.62½	.60	.62½
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.03	.03⅛	.03	.03⅛
14-16 fuel oil	.70	.75	.70	.75
ARKANSAS (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.03	.03⅛	.03	.03⅛
32-36 gas oil	.02⅞	.03	.02⅞	.03
14-16 fuel oil	.70	.75	.70	.75
CHICAGO (based on Oklahoma Group 3)—				
32-36 gas oil, industrial	.02	.02⅛	.02	.02⅛
28-30 zero to 10, fuel oil	1.05	1.10	1.05	1.10
26-28 zero to 10, fuel oil	.95	1.00	.95	1.00
22-26 zero to 10, fuel oil	.82½	.87½	.82½	.87½
18-22 zero to 10, fuel oil	.67½	.72½	.67½	.72½
Below 18 fuel oil	.57½	.62½	.57½	.62½

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel in all these areas.

PENNSYLVANIA (inland refineries)—				
30-40	.03¾	.03⅞	.03¾	.03⅞
CALIFORNIA—				
Los Angeles:				
30-34 gas oil per bbl.	1.10	1.26	1.10	1.26
27 plus Diesel	1.10	1.15	1.10	1.15
27 plus Diesel (bunkers)	1.13	1.20	1.13	1.20
12-16 (bunkers at tidewater)	.82½	.85	.82½	.85
10-16 (cargo lots)	.70	.75	.70	.75
12-17 (tank cars)	.62½	.80	.62½	.80
San Joaquin Valley:				
10-18 (tank cars)	.60	.70	.60	.70
San Francisco:				
27 plus Diesel per bbl.	1.15	1.20	1.15	1.20
27 plus Diesel (bunkers)	1.19		1.19	
10-16 (bunkers)	.90		.90	
GULF COAST—				
28-30 gas oil	.03½	.03⅝	.03½	.03⅝
28-30 Diesel (bunkers)	1.70		1.70	
Bunker C (bulk cargoes)	.85	.90	.85	.90
Bunker C (bunkers)	.95	1.00	.95	1.00
NEW YORK (Bayonne, N. J.)—				
27 plus, gas oil	.04¾		.04¾	
28-30, Diesel (lighterage 6½ cents per bbl.)	1.89		1.89	
28-30 Diesel (tank cars)	.04¾		.04¾	
*Bunker C (to ocean-going ships in N. Y. harbor)	1.15		1.15	

*Lighterage charge 5 cents per barrel additional.

Neutral Oils

(Vis. at 100° F. except Pennsylvania, and color N.P.A.)

OKLAHOMA (Group 3)—	Feb. 12	Feb. 5
Zero to 10 Cold Test:		
150-3	.10	.10
180-3	.11¼	.11¼
180-4	.10¾	.10¾
200-3	.11¾	.11¾
200-4	.11¼	.11¼
240-3	.13¾	.13¾
240-4	.13¼	.13¼
280-3	.14¾	.14¾
280-4	.14	.14
300-3½	.15¼	.15¼
400-4	.17¼	.17¼
100-2 paraffin oil	.05¾	.05¾
15-20 Cold Test:		
200-3	.10¾	.10¾
200-4	.10¼	.10¼
240-3	.12¾	.12¾
240-4	.12¼	.12¼
280-3	.13¾	.13¾
280-4	.13	.13

GULF COAST—				
Pale Oils:				
200-3	.07	.07½	.07⅛	.07½
300-3	.07½	.08	.07½	.08
500-3½	.08½	.09	.08½	.09
750-3½	.09	.09¼	.09	.09¼
1,200-3½	.09½	.09¾	.09½	.09¾
2,000-4	.09¾	.10	.09¾	.10
Red Oils:				
200-5-6	.07	.07¼	.07	.07¼
300-5-6	.07¼	.07½	.07¼	.07½
500-5-6	.08	.08½	.08	.08½
750	.08½	.09	.08½	.09
1,200-5-6	.09¼	.09½	0.9¼	.09½

CALIFORNIA (moving to domestic market)—				
Pale Oils:				
100-2½-3	.12½	.14½	.12½	.14½
200-2½-3	.12½	.14½	.12½	.14½
300-3-3½	.12½	.14½	.12½	.14½
350-3-4	.12½	.14½	.12½	.14½
400-3-4	.12½	.14½	.12½	.14½
450-3-4	.12½	.14½	.12½	.14½
550-3-4	.12½	.14½	.12½	.14½
600-3-4	.12½	.14½	.12½	.14½
Red Oils:				
200-4-5	.12½	.14½	.12½	.14½
300-5-6	.12½	.14½	.12½	.14½
350-5-6	.12½	.14½	.12½	.14½
400-5-6	.12½	.14½	.12½	.14½

450-5-6	.12½	.14½	.12½	.14½
500-5-6	.12½	.14½	.12½	.14½
600-5-6½	.12½	.14½	.12½	.14½
700-6½ plus	.12½	.14½	.12½	.14½
750-6½ plus	.12½	.14½	.12½	.14½
900-6½ plus	.12½	.14½	.12½	.14½
PENNSYLVANIA—				
150 vis. at 70° F., 3 color, 400-405 flash:				
Zero pour test	.24½	.25	.24½	.25
10 pour test	.23½	.24	.23½	.24
15 pour test	.23	.23½	.23	.23½
25 pour test	.22	.22½	.22	.22½
180 vis. at 70° F., 3 color:				
25 pour test	.24½	.25	.24½	.25
200 vis. at 70° F., 3 color:				
Zero pour test	.30½	.31	.30½	.31
10 pour test	.29½	.30	.29½	.30
15 pour test	.29	.29½	.29	.29½
25 pour test	.28	.28½	.28	.28½

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
Bright Stocks:				
190-200 D	.16½		.16½	
150-160 D, 0-10	.13½		.13½	
150-160 D, 10-25	.13		.13	
150-160 24-40	.12½		.12½	
150-160 E	.12½		.12½	
Steam refined:				
630 light green (treated)	.07½	.08	.07½	.08
600 light green (untreated)	.06	.08	.06	.08
600 dark green (untreated)	.04½	.07	.04½	.07
PENNSYLVANIA—				
Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 210; 540-550 flash):				
10 pour test	.19	.19½	.18½	.19
15 pour test	.18	.18½	.17½	.18
20 pour test	.16½	.17	.16	.16½
25 pour test	.16	.16½	.15½	.16
Steam refined:				
600	.08½	.09½	.08	.09
650	.10½	.11½	.10	.11
600 Pennsylvania flash	.11½	.12½	.12	
630 flash	.16½	.17½	.16	.17
600 Warren E filtered	.12½	.13½	.12	.13

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	Feb. 12		Feb. 5	
124-126 white crude scale	.02¾	.03¼	.02¾	.03¼
PENNSYLVANIA—				
122-124	.0290	.0295	.0290	.0295
124-126	.0295	.0300	.0295	.0300
NEW YORK—				
Wax (a.m.p.) in bags fully refined:				
120-122	.0420	.0430	.0420	.0430
123-125	.0440	.0460	.0440	.0460
125-127	.0445	.0470	.0445	.0470
130-132	.05	.0510	.05	.0510
133-135	.0545	.0570	.0545	.0570
135-137	.0570	.0595	.0570	.0595
124-126 crude scale	.02⅞	.0300	.02⅞	.0300
Petrolatum in barrels in carload lots:				
Dark green	.01⅞		.01⅞	
Amber	.02⅞	.03	.02⅞	.03
Extra amber	.03	.03⅛	.03	.03⅛
Lily white	.06⅝	.06¾	.06⅝	.06¾
Snow white	.07⅜	.07⅞	.07⅜	.07⅞
Cream	.05⅝	.05¾	.05⅝	.05¾
CHICAGO (f.o.b. switching district)*—				
122-124 wax	.0490	.0500	.0490	.0500
125-127 wax	.0515	.0525	.0515	.0525
127-129 wax	.0530	.0540	.0530	.0540
130-132 wax	.0590	.0600	.0590	.0600
132-134 wax	.0615	.0625	.0615	.0625

*Cents per pound on carlot orders in burlap bags of 225 lbs. approx. Add 3° F. a.m.p.

Export Prices

GASOLINE

GULF COAST—	Feb. 12		Feb. 5	
U. S. Motor	.04¼	.04⅜	.04⅜	.04½
60-62 400	.04⅝	.04½	.04½	.04⅝
61-63 390	.04½	.04⅝	.04⅝	.04¾
64-66 375	.04¾	.04⅞	.04¾	.05
LOS ANGELES, CALIF.—				
U. S. Motor grades:				
53-55 octane	.04	.04¼	.04	.04¼
55-65 octane	.04¼	.04½	.04¼	.04½
65-67 octane	.04½	.04¾	.04½	.04¾
67-69 octane	.04¾	.05	.04¾	.05
Above 69 octane	.05	.05¼	.05	.05¼
58-60 400 endpoint	.04¾	.05½	.04¾	.05½
KEROSENE				
GULF COAST—				
41-43 prime white	.04¾	.04⅞	.04¾	.04⅞
41-43 water white	.05		.05	
44 water white	.05⅛	.05¼	.05⅛	.05¼
LOS ANGELES, CALIF.—				
41-43 water white	.04½	.04¾	.04½	.04¾
LUBRICANTS				
NEW YORK (f.a.s. in bbls.)—				
Cylinder Stocks:				
600 Warren E	.19	.19½	.19	.19½
600 S.R. unfiltered	.14	.14½	.14	.14½
650 S.R. unfiltered	.16½	.17	.16½	.17
600 flash S.R.	.17½	.18	.17½	.18
630 flash S.R.	.22	.22½	.22	.22½
Bright Stocks:				
8 color	.22	.22½	.22	.22½
6½ plus colors in dilution	.21	.21½	.21	.21½
NEUTRAL OILS				
200-3 color	.34½	.35	.34½	.35
150-3 color	.28½	.29	.28½	.29
PARAFFIN WAX (Fully Refined)				
NEW YORK (prices per pound):				
120-122 a.m.p.	.0405	.0425	.0405	.0425
123-125 a.m.p.	.0435	.0455	.0435	.0455
125-127 a.m.p.	.0440	.0465	.0440	.0465
128-130 a.m.p.	.04¾	.0490	.04¾	.0490
130-132 a.m.p.	.0495	.0505	.0495	.0505
133-135 a.m.p.	.0540	.0565	.0540	.0565
135-137 a.m.p.	.0565	.0590	.0565	.0590

Crude Oil Gravity Table

Gravity—	Oklahoma and Kansas 1	North Texas, Central Texas and East Central Texas 2	North Louisiana and Arkansas 3	Gray County, Texas 4	Carson, Hutchinson and Moore Counties, Texas 5	Conroe, Texas 6	Salt Creek, Wyo. 7	Gulf Coast, Texas and Louisiana 8	Gulf Coast, Texas and Louisiana 9	Cotton Valley, Louisiana 10
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.70
25-25.9	*.78	....	....	....	....	....	....	.94	.94	.72
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.06	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$.70	$.69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

Effective December 3, 1934, Panhandle Refining Co., purchasing oil in North Texas, posted below 29 degrees, 65 cents; 29-29.9 degrees, 70 cents, with 2 cents added for each additional degree up to 40 and over, at 92 cents.

*The following companies purchasing crude oil in Kansas or Oklahoma, or both, begin their price schedule: Below 25°, 76 cents; 25-25.9°, 78 cents, with 2 cents added for each degree upward to 40 and over at $1.08; Carter Oil Co., Magnolia Petroleum Co., Pure Oil Co., Rock Island Refining Co., Shell Petroleum Corp., Sinclair Prairie Oil Marketing Co., Skelly Oil Co., and Wilcox Oil & Gas Co. All others begin their schedules at below 29°, 84 cents, excepting Philtex Oil Co., which begins with below 31° at 88 cents.

Column 1—Effective September 29, 1933, Texas Co. of Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas and Oklahoma; Anderson & Prichard, Inc., in Oklahoma; Bell Oil & Gas Co. in Oklahoma; Carter Oil Co. in Oklahoma and Kansas; Deep Rock Oil Co. in Oklahoma; Derby Oil Co. in Kansas; Globe Refining Co. in Oklahoma; Golden Rule Refining Co. in Kansas; Gypsy Oil Co. in Oklahoma and Kansas; Kanotex Refining Co. in Kansas; Magnolia Petroleum Co. in Oklahoma; Mid-Continent Petroleum Corp. in Oklahoma; National Refining Co. in Kansas and Oklahoma; Shell Petroleum Corp. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co. in Kansas and Oklahoma; Texas Co. in Oklahoma; Tide Water Oil Co. in Oklahoma; Vickers Refining Co. in Kansas; Continental Oil Co. in Kansas and Oklahoma; Empire Pipe Line Co. in Oklahoma and Kansas; Philtex Oil Co. in Kansas and Oklahoma; Pure Oil Co. in Oklahoma; Skelly Oil Co. in Kansas. Effective September 29, by White Eagle Oil Corp. in Kansas; October 1, by Barnsdall Refineries, Inc., in Oklahoma.

Column 2—Effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Bell Oil & Gas Co., Continental Oil Co. Effective January 14, 1935, in the Van Pool, Van Zandt County, Pure Oil Co. posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03.

Column 3—Effective September 29, 1933, by Texas Co., Magnolia Petroleum Co., Gulf Refining Co. Effective December 22, Stanolind Oil & Gas Co. in Pine Island, Louisiana, and Marion County, Texas, posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03. Effective March 17, 1934, by Standard Oil Co. of Louisiana and Louisiana Oil Refining Co. Starting with below 25°, 71 cents, adding 2 cents for each degree upward to 40 and over at $1.03.

Column 4—Effective September 29, 1933, by Texas Co., Humble Oil & Refining Co., Magnolia Petroleum Co., Sinclair Prairie Oil Marketing Co., and H. F. Wilcox Oil & Gas Co. On same day, Philtex Oil Co. posted below 31°, 71 cents, with 2 cents added for each degree up to 40 and over at 91 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 5—Effective September 29, 1933, by Texas Co., Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Wilcox Oil & Gas Co., Continental Oil Co. On same day, Philtex Oil Co. posted below 31°, 61 cents, with 2 cents added for each degree upward to 40 and over at 81 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 6—Effective September 29, 1933, by Humble Oil & Refining Co. and Tide Water Oil Co., and on September 30 by Texas Co., which on September 29 had posted a schedule of $1.07 to $1.12 with a 1-cent spread on each degree.

Column 7—Effective September 29, 1933, by Stanolind Oil & Gas Co.

Column 8—Effective September 29, 1933, by Humble Oil & Refining Co., Gulf Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., Sinclair Prairie Oil Marketing Co. On October 2, Magnolia Petroleum Co. posted Lockport, Louisiana, 20-20.9°, 84 cents, with 2 cents added for each degree upward to 34 and over at $1.12; and in Cameron Meadows and Iowa, Louisiana, below 26°, 72 cents, with 2 cents added for each degree up to 34 and over at $1.02. These prices were 2 cents higher on each degree than Magnolia prices posted on September 29. Effective September 29, Shell Petroleum Corp. posted in Iowa, Louisiana, district: Below 26°, 70 cents, with 2 cents added for each degree upward to 34° and over at $1; and in Black Bayou and White Castle, Louisiana: Below 20°, 80 cents, with 2 cents added for each degree upward to 34° and over at $1.10.

Column 9—Effective September 30, 1933, Texas Co. (On September 29 Texas Co. has posted a schedule of 2 cents on each degree, but changed it on September 30.)

Column 10—Effective September 29, 1933, by Louisiana Oil Refining Co.

(California Crude Oil Prices on Page 33)

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas $1.00
Corsicana (heavy) (June 17, 1933)* ..... .80
Other fields ..... (See gravity table)

Note—In East Texas, effective September 29, 1933, by Texas Co., Sanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Shell Petroleum Corp., Gulf Pipe Line Co., Tide Water Oil Co., Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co., Sun Oil Co., Panola Pipe Line Co., Empire Oil & Refining Co., and Atlas Pipe Line Co. posted 60 cents per barrel in East Texas, but on November 2 resumed its posted price of $1 per barrel, making it retroactive to October 22.

*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933) ..... $.70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933) ..... .76
Pecos County, Yates shallow Pool (Sept. 29, 1933)* ..... .85
Jones and Fisher Counties*. See gravity table

Note—Effective September 29, 1933, by Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co., Shell Petroleum Corp., Magnolia Petroleum Co., and by Stanolind Oil & Gas Co. in Winkler County, Texas.

*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers.
..... (See gravity table)
Tomball (see note)* $1.15
Livingston (Sept. 29, 1933)† 1.00
Cleveland (Jan. 11, 1934) 1.00
Greta (Sept. 29, 1933) ..... .85
Refugio, light ..... (See gravity table)
Refugio, heavy (Sept. 29, 1933)‡ ..... .85
Markham and High Island .....
.....(See Gulf Coast gravity table)
Conroe .....(See Conroe gravity table)
Bosco, La. (Oct. 15, 1934)§ $1.03

Note—Tomball, effective September 30, by Humble Oil & Refining Co. and October 2 by Magnolia Petroleum Co., and November 10 by Stanolind Crude Oil Purchasing Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy by Humble Oil & Refining Co. Cleveland (Liberty County) posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

South Central and Southwest Texas

(See note below table)

Darst Creek ..... $.87
Mirando ..... .80
Luling (Sept. 29, 1933) ..... .75
Pettus 1.05
Salt Flat ..... .87
Lytton Springs (Sept. 29, 1933) ..... .95
Duval County (Sept. 29, 1933) ..... .80
Saxet ..... .85

Note—Effective on September 29 by Humble Oil & Refining Co. in Darst Creek, Mirando, Pettus, Salt Flat and Saxet. Effective September 29 in Darst Creek by Gulf Pipe Line Co. and Texas Co. Effective October 2 by Magnolia Petroleum Co. Effective in Pettus and Salt Flat on September 29 by Humble Oil & Refining Co. and Gulf Pipe Line Co. Luling and Lytton Springs by Magnolia Petroleum Co. Duval County by Texas Co. Saxet, effective September 29, by

(Continued on Page 33)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

February 12, 1935

Taxes

The gasoline quotations given in the following tables include the 1-cent Federal tax, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 3 cents a gallon off retail prices is permitted for purchases running between 4,000 and 10,000 gallons a month, or 4 cents a gallon off retail prices for purchase in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Denver, Colo.	18.0	20.0	5.0	13.6
Pueblo	17.0	19.0	5.0	13.0
Grand Junction	18.5	20.5	5.0	15.0
Casper, Wyo.	18.0	20.0	5.0	11.5
Cheyenne	18.0	20.0	5.0	13.0
Butte, Mont.	21.0	23.0	5.0	17.5
Billings	22.0	24.0	6.0	16.5
Helena	22.0	25.0	6.0	17.5
Great Falls	21.5	23.5	6.0	17.5
Salt Lake, Utah	21.0	23.0	5.0	16.0
Boise, Idaho	22.5	24.5	6.0	18.0
Twin Falls	22.5	24.5	6.0	18.0
Albu'que, N. M.	18.0	20.0	*6.5	13.0

*One-half cent city tax.

Effective March 1, 1934, discount to dealers with or without contract throughout Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Standard Oil Co. (Indiana)

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Chicago	14.3	16 3	4 0	8.0
Decatur, Ill.	14.2	16.2	4.0	10 0
E. St. Louis	13.9	15 9	4.0	9.3
Joliet	14.3	16.3	4.0	10 0
Peoria	14.2	16.2	4.0	10.0
Quincy	14.1	16.1	4.0	9.8
Davenport, Ia.	14.2	16.2	4.0	10.1
Des Moines	14.1	16.1	4.0	10.1
Mason City	14.4	16.4	4.0	10 1
Sioux City	14.3	16.3	4.0	9.7
Duluth, Minn.	15.0	17.0	4.0	10.4
Mankato	14.7	16.7	4.0	10 2
Minneapolis	14.7	16.7	4.0	10.4
LaCrosse, Wis.	15.7	17.7	4.0	10.8
Green Bay	15.9	17.9	5.0	10.2
Milwaukee	15.5	17 5	5 0	9 7
Madison	15.7	17 7	5.0	9.9
Detroit, Mich.	15.0	17 0	4 0	9 0
Grand Rapids	14.9	16 9	4.0	10.2
Saginaw	15.2	17 2	4 0	10 5
Evansville, Ind.	16.0	17.8	5.0	10.0
Indianapolis	16.1	18.1	5.0	10.2
South Bend	16.4	18.4	5.0	10.5
Fargo, N. Dak.	15.7	17.7	4.0	11.4
Huron, S. Dak.	16 2	18.2	5 0	11 3
Sioux Falls	15.6	17.6	5.0	10.9
Kans. C., Mo.*	13.6	15.6	4.0	7.5
Springfield	13.3	14 5	4 0	7.0
St. Louis	13.9	15.9	3.5	7.5
St. Joseph*	13 6	15 6	4 0	8.8
Wichita, Kans.	13 2	15.2	4 0	6 0
Bartlesville, Ok.	16.8	18.0	5.0	8.5

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

Discounts to dealers: Undivided accounts, 3½ cents on premium and regular and 2½ cents on third grade off service station prices; divided accounts one-half cent less than undivided. Where prices are more than 1 cent below normal, the discounts are one-half cent less than above.

Naphtha

	Tank wagon*
Oleum spirits	16.7
V.M.&P. naphtha	18.0
Cleaners' naphtha	18.0
Stanisol	18.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax nor 2 per cent retail occupational tax.

Prices f.o.b. Chicago, January 5, 1935. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Stanolex Furnace Oil in Chicago

Effective Feb. 8, 1935, f.o.b. Chicago tank wagon prices: Range oil, less than 80 gallons, 8¼ cents; 80-149 gallons, 7¼ cents; 150 gallons and more, 7 cents. No. 1 (36-40 lt. stw. zero), less than 100 gallons, 8½ cents; 100-149 gallons, 7½ cents; 150 gallons or more, 7 cents; No. 2 (30-34, stw. zero), less than 150 gallons, 8 cents; No. 3 (22-26, zero), less than 150 gallons, 7 cents; No. 4 (12-16 zero), less than 400 gallons, 7 cents; viscosity of No. 4, 85 at 100° F.; No. 5, less than 400 gallons, 5¾ cents For deliveries of more than stated quantities of Nos. 2, 3, 4 and 5, deduct 1 cent.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atlanta, Ga.	19.0	21.0	7 0	12 0
Augusta	19 0	21.0	7 0	15 0
Macon	19.0	21.0	7.0	15.0
Savannah	17 5	19.5	7.0	14.0
Birm'ham, Ala.	19 5	21 5	8.0	12.0
Mobile	18.5	20.5	8.0	11 0
Montgomery	20.5	22.5	8.0	15 5
Jackson, Miss.	18.5	20.5	7.0	13.0
Vicksburg	18.0	19.5	7.0	14.5
Jack'ville, Fla.	18 5	20 5	8 0	11.5
Miami	18 5	20 5	8 0	13.5
Pensacola	19.0	21.0	8 0	13.5
Tampa	18.5	20.5	8 0	12 5
Lexington, Ky.	17.0	19.0	6.0	11.5
Covington	14.5	15 5	6.0	12.5
Louisville	16 5	18 0	6 0	12.0
Paducah	16 5	18 5	6 0	11 0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia and Mississippi include 1 cent state tax; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline; in Florida an inspection fee of one-eighth cent on kerosene and gasoline. To Pensacola, Mobile and Birmingham state taxes on gasoline add 1 cent city tax.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Dallas, Tex.	12.0	14.0	5.0	7.0
Fort Worth	12.0	14.0	5.0	7.0
Houston	12.0	14.0	5.0	7.0
San Antonio	16 0	18 0	6 0	7.0
El Paso	16.0	18.0	5.0	10.0
Muskogee, Ok.	16.0	18 0	5.0	7.5
Okla. City	16.0	18 0	5.0	7.5
Tulsa	16.0	18.0	5.0	7.5
Ft. Smith, Ark.	14.1	16.5	5.0	9.0
Little Rock	16.6	19.0	7.5	9.0
Texarkana	14.0	16.0	5.0	7.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atl'tic City, N.J.	13.4	16 9	4.0	9.0
Newark	12.7	16.2	4.0	8.5
Annapolis, Md.	14.5	18.0	5.0	10.0
Baltimore	14.0	17.5	5.0	8.5
Cumberland	15.0	18.5	5.0	12.7
Wash'g'n, D. C.	12.0	15.5	3.0	11.5
Danville, Va.	16.5	20.0	6.0	12.9
Norfolk	15.0	18.5	6.0	11.3
Petersburg	15.5	19.0	6.0	11.4
Richmond	15.5	19.0	6.0	11.7
Roanoke	16 5	20.0	6.0	12.9
Charle'n, W.Va.	15.0	18.5	5.0	12.6
Parkersburg	14.5	18.0	5.0	11.2
Wheeling	15.0	18.5	5.0	12.2
Charlotte, N. C.	17.4	20.9	7.0	13.5
Hickory	17 5	21.0	7.0	13.7
Mt. Airy	17 5	21.0	7.0	13.8
Raleigh	17 3	20.7	7.0	13.3
Salisbury	17 5	21.0	7.0	13.6
Charleston, S.C.	15.2	18.7	7.0	11.3
Columbia	16.5	19.5	7.0	13.2
Spartanburg	17.4	30.9	7.0	13.5

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Omaha	15.6	17.6	5.0	10.0
McCook	16.3	18.3	5.0	10.7
Norfolk	16.0	18.0	5.0	10.4
North Platte	16.4	18.4	5.0	10.0
Scottsbluff	17.1	19.1	5.0	11.5

Note: Discounts to dealers; where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal, resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Corwn, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank wagon deliveries covered only by Standard Commercial Consumers Contract, effective Jan. 1, 1935.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
N. Orleans, La.	14 5	17.5	‡8.0	10.5
Baton Rouge	15.2	18.7	†7.0	12.0
Alexandria	16.1	19.6	†*8.0	10.0
Lafayette	16.3	19.8	‡*8.0	12.0
Lake Charles	16.2	19.7	†*8.0	12.0
Shreveport	12 5	15.0	†7.0	12.0
Knoxville, Tenn.	18.7	22.2	8.0	13.5
Memphis	17.0	20.5	8.0	10.5
Chattanooga	18.0	21.0	8 0	11 0
Nashville	18.0	21.5	8 0	13.0
Bristol	17.0	20.5	8.0	14.0

*Includes city tax of 1 cent.

‡Includes 2-cent parish tax. †Includes 1-cent parish tax.

Effective October 23, tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline			Kero-
	Tank wagon†	Posted retail	Incl'ds tax of	tank wagon
San Francisco	16 5	18.5	4.0	12.5
Los Angeles	15.5	17.5	4.0	12.5
Fresno, Calif.	17.0	19.0	4.0	14.0
Phoenix, Ariz.	20.0	22.0	6.0	‡16.0
Reno, Nev.	19.0	21.0	5.0	15.5
Portland, Ore.	19.0	21.0	6.0	13.5
Seattle, Wash.	19.0	21.0	6.0	13.5
Tacoma	19.0	21.0	6.0	13.5
Spokane	22.0	24.0	6.0	18.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

‡Includes 5-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Phil'delphia, Pa.	14.0	16.0	4.0	9.0
Pittsburgh	15.0	17.0	4.0	10.0
Allentown	14.5	16.5	4.0	10.0
Erie	12.5	12.5	4.0	9.0
Scranton	15.0	17.0	4.0	10.0
Altoona	15.0	17.0	4.0	10.0
Dover, Del.	14.5	16.5	4.0	10.0
Wilmington	14.5	16.5	4.0	9.0
Springf'd, Mass.	13.5	17.0	4.0	8.5
Worcester	12.5	17.0	4.0	9.0
Hartford, Conn.	12.5	16.0	3.0	8.0
New Haven	12 5	16.0	3.0	8.5
Providence, R.I.	12.0	14.0	3.0	8.5

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Canada*

Imperial 3-Star Gasoline

IMPERIAL OIL, LTD.

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Hamilton, Ont.	†22.0	25.0	6.0	17.5
Toronto, Ont.	†22.0	25.0	6.0	17.5
Brandon, Man.	30.3	33.3	7.0	21.8
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	29.0	32.0	6.0	21.5
Saskatoon, Sask.	31.3	34.3	6.0	24.3
Edmonton, Alta.	31.2	34.2	6.0	23.7
Calgary, Alta.	28.5	31.5	6.0	21.0
Vancouver, B.C.	27.0	30.0	7.0	24.0
Montreal, Que.	24.0	27.0	6.0	17.0
St. John, N.B.	26.0	30.0	8.0	19.5
Halifax, N. S.	26.0	30.0	8.0	19.5

*Imperial gallon used in Canada. †Governed by service station price.

Maritime provinces, all dealers 4 cents off service station price. All other provinces open dealers 3 cents per gallon off service station price (except Toronto and Hamilton cities which are—open dealers 2½ cents off service station price) 1 cent additional to 100 per cent accounts.

New York and New England

SOCONY-VACUUM CO., INC.

	Gasoline			Kero
	Posted dealer	Service station	Incl'ds tax of	wagon
Albany, N. Y.	13.5	17.0	4.0	9 0
Met. New York	13.5	17.0	4.0	8.75
Br'klyn, Queens	13.5	17.0	4.0	8.5
Buffalo	9.5	12.0	4.0	8.0
Rochester	10.0	12.5	4.0	8.5
Syracuse	13.5	17.0	4.0	8.75
Boston, Mass.	13.0	16.5	4.0	8 5
Portland, Me.	15.0	18.5	5.0	8.75
Manch't'r, N.H.	15.0	18.5	5.0	9.0
Burlington, Vt.	16.5	20.0	5.0	9 0

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline			Kero-
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Ohio points	16.5	17.5	5.0	*13 5

*Includes state tax of 1 cent, effective July 22.

Retail Price Changes

Regular-Grade Gasoline and Kerosene

Atlantic Refining Co., February 1, reduced station gasoline 1.5 cents in Providence.

Standard Oil Co. of New Jersey, January 30, advanced tank wagon and station gasoline 1 cent in Wheeling. February 4, advanced tank wagon gasoline 1.4 cents and station gasoline 1.9 cents in Charlotte; advanced tank wagon gasoline 1 cent and station gasoline 1.5 cents in Hickory; advanced tank wagon gasoline one-half cent and station gasoline 1 cent in Mount Airy; advanced tank wagon gasoline .7 cent and station gasoline 1.2 cents in Raleigh; advanced tank wagon gasoline 1 cent and station gasoline 2 cents in Salisbury.

Standard Oil Co. of California, February 7, advanced tank wagon and station gasoline 4.5 cents in Spokane.

Standard Oil Co. of Louisiana, January 30, reduced tank wagon gasoline one-half cent and station gasoline 1 cent in Shreveport. February 1, advanced tank wagon kerosene 1 cent in Nashville.

Standard Oil Co. of Kentucky, January 24, advanced tank wagon and station gasoline 1.5 cents in Lexington. January 24, advanced tank wagon gasoline 1 cent and station gasoline 1.5 cents in Louisville. January 31, reduced tank wagon kerosene 1 cent in Paducah; February 1, advanced tank wagon gasoline 2 cents and station gasoline 3 cents. January 4, reduced tank wagon kerosene 2.5 cents in Birmingham. January 30, advanced tank wagon gasoline 1.5 cents and station gasoline 2.5 cents in Mobile; February 2, reduced tank wagon kerosene 2 cents. January 30, advanced tank wagon gasoline 2 cents and station gasoline 3 cents in Montgomery. January 30, reduced tank wagon kerosene 3 cents in Atlanta. January 23, advanced tank wagon gasoline 1 cent and station gasoline 2 cents in Augusta. January 24, advanced tank wagon and station gasoline one-half cent in Jacksonville, Miami and Tampa. January 24, advanced tank wagon and station gasoline 1 cent in Pensacola; January 31, reduced them 1 cent.

Standard Oil Co. of Indiana, February 8, advanced tank wagon and station gasoline .1 cent in Decatur; reduced tank wagon gasoline and tank wagon kerosene .2 cent and advanced station gasoline 4.9 cents in East St. Louis; reduced tank wagon and station gasoline and tank wagon kerosene .2 cent in Joliet; reduced tank wagon gasoline one-half cent and tank wagon kerosene .2 cent and advanced station gasoline 2.7 cents in Peoria; reduced tank wagon gasoline 1.8 cents and tank wagon kerosene .2 cent and advanced statio gasoline 1.2 cents in Quincy; advanced station gasoline 2.2 cents in Davenport; advanced tank wagon kerosene .8 cents in Mankato; reduced tank wagon and station gasoline .3 cent in Minneapolis and Madison; reduced tank wagon and station gasoline .3 cent and advanced tank wagon kerosene

(Continued on Page 32)

February Refinery Runs Were Higher Than in January

(Continued from Page 16)

EAST TEXAS

Company and location—	Daily capacity	Aver. daily runs February	Aver. daily runs January
Acme Refining Co., Gladewater	700	720	180
Adams Refining Co., Big Sandy	1,000	(*)	(*)
Alcon Refining Co., Gladewater	1,500	(*)	(*)
Arrow Refining & Producing Co., Overton	5,000	860	1,450
Artex Refining Co., No. 1, Arp	1,600	(*)	(*)
Artex Refining Co., No. 2, Camps Switch	3,700	(*)	(*)
Atlantic & Gulf Refining Co., Kilgore	2,000	(*)	(*)
Atlas Refining Co., Gladewater	100	(*)	(*)
Aviation Refining Co., Kilgore	200	(*)	(*)
Bartlett Refining Co., Kilgore	200	(*)	(*)
Beacon Oil & Refining Co., Henderson	4,500	200	600
Boneta Refining Co., Joinerville	500	200	(*)
C. L. & W. Refiners Corp., Gladewater	1,300	750	270
Century Refining Co., Friars Switch	2,300	(*)	(*)
Chief Refining Co., Gladewater	1,500	700	(*)
Condor Refining Co., Kilgore	1,000	(*)	(*)
Consolidated Refining Co., Gladewater	1,500	1,140	800
Culver Refining Co., Gladewater	3,700	940	1,400
Danciger Refineries, Inc., Longview	10,000	(*)	(*)
East Texas Refining Co., No. 2, Longview	10,000	3,600	2,000
Friar Topping & Refining Co., Friars Switch	1,500	(*)	700
Gilliland Refining Co., Gladewater	3,500	2,200	670
Gilmer Refining Co., Gladewater	500	(*)	(*)
Godlin Refining Co., Gladewater	850	(*)	(*)
Goodson, Gentry, Carles Ref. Co., Gladewater	1,000	50	(*)
Gregg Refining Co., Gladewater	500	(*)	(*)
Hub Oil Refining Co., Reeds Switch	100	(*)	(*)
Humble Oil & Refining Co., Neches	5,000	450	450
Hunter & Knox Refining Co., Reeds Switch	100	(*)	(*)
Ideal Refining Co., No. 2, Gladewater	750	(*)	(*)
Illinois Refining Co., Kilgore	1,000	(*)	(*)
Jackson Refining Co., Gladewater	1,500	(*)	(*)
Jai Refining Co., Gladewater	1,500	800	(*)
Johnson Refining Co., No. 1, Kilgore	1,400	(*)	400
Kent Refining Co., Angus	4,000	(*)	(*)
Kilgore Reclamation Co., Kilgore	2,000	(*)	(*)
Kilgore Refining Co., Kilgore	3,000	(*)	(*)
Kiltex Refining Co., Kilgore	500	(*)	(*)
L. & G. Refining Co., Gladewater	1,100	60	(*)
Lake Refining Co., Gladewater	2,000	1,000	1,300
Lapren Refining Co., Kilgore	1,500	640	1,200
Linzie Refining Co., Gladewater	2,500	900	500
London Topping & Refining Co., Overton	400	(*)	(*)
Lone Star Refining Co., Gladewater	2,700	1,600	400
Magnolia Petroleum Co., Corsicana	5,000	3,000	3,000
Master Petroleum Co., Waco	1,000	(*)	400
McKain Refining Co., Gladewater	800	450	200
McMurray Refining Co., Arp	4,000	860	(*)
Minerva Refining Co., Minerva	2,000	(*)	(*)
Model Oil & Refining Co., Reeds Switch	1,400	(*)	(*)
Ocean Refining Co., Kilgore	3,000	800	(*)
Oil Refineries, Inc., Overton	4,000	2,500	(*)
Outdoor Refining Co., Kilgore	900	(*)	(*)
Overton Refining Co., Overton	3,000	(*)	(*)
Ozozo Refining Co., Friars Switch	10,000	(*)	(*)
Panama Refining Co., Kilgore	3,500	(*)	(*)
Pelican Refining Co., No. 1, Gladewater	900	(*)	(*)
Pennant Refining Co., Kilgore	1,300	(*)	(*)
Pentex Refining Co., Gladewater	500	(*)	(*)
Phoenix Refining Co., Dallas	5,000	(*)	(*)
Pope Refining Co., Gladewater	1,700	(*)	(*)
Producers Oil Refining Co., Reeds Switch	2,700	(*)	(*)
Rabbit Creek Refining Co., Kilgore	200	(*)	(*)
Recla Refining Co., Turnertown	200	(*)	(*)
Rig Topping & Refining Co., Kilgore	200	(*)	(*)
Roco Refining Co., Kilgore	2,400	(*)	(*)
Rusk Refining Co., Overton	3,000	(*)	(*)
Shoreline Refining Co., Kilgore	2,700	(*)	(*)
Simms Oil Co., West Dallas	4,000	(*)	(*)
Sinclair Refining Co., Camps Switch	5,000	1,500	1,500
Southern Oil Refining Co., Reeds Switch	1,800	(*)	(*)
Southport Refining Co., Kilgore	3,300	2,000	200
Solarene Refining Co., Overton	2,500	1,500	(*)
Staley, J. L., Refinery, Friars Switch	6,000	(*)	(*)
Supreme Refining Co., Gladewater	1,000	870	100
Texas Co., Dallas	16,000	11,000	10,000
Texas Oil Products Co., Gladewater	2,000	1,700	1,200
Texas Refining Co., No. 1, Kilgore	1,200	(*)	(*)
Texas Refining Co., No. 2, Gladewater	2,300	(*)	(*)
Texas State Refining Co., No. 1, Kilgore	1,000	150	200
Triangle Refining Co., Kilgore	2,500	90	(*)
Trio Refining Corp., Arp	1,500	900	(*)
Tucon Refining Co., Gladewater	900	(*)	(*)
Twintex Refining Co., Kilgore	200	(*)	(*)
Tyler, Texas Producing & Refining Co., Tyler	15,000	2,500	(*)
Tyreco Refining Co., No. 1, Arp	2,500	1,900	600
Tyreco Refining Co., No. 2, Overton	3,000	2,000	2,000
Union Refining Co., Kilgore	3,000	1,350	(*)
Upshur Refining Co., Gladewater	1,000	(*)	(*)
Utah Refining Co., Kilgore	2,500	(*)	170
Wabash Refining Co., Gladewater	1,000	(*)	(*)
Walrip & Stevens Refining Co., Omega	1,000	(*)	(*)
Wolfe Refining Co., Kilgore	1,000	(*)	(*)
Total	231,800	52,880	31,890

*Shut down.

SOUTHWEST TEXAS

Company and location—	Daily capacity	Aver. daily runs February	Aver. daily runs January
Amsco Refining Co., Mirando City	2,000	950	1,000
Bee Oil & Refining Co., Pettus	1,000	500	500
Capital Refining Co., Luling	2,500	(*)	(*)
Chapa Refining Co., Laredo	100	50	50
Citizens Refining Co., Luling	200	50	60
Humble Oil & Refining Co., San Antonio	5,000	2,400	2,410
Magnolia Petroleum Co., Luling	7,000	5,000	5,175
Neuces Refining Co., Banquete	1,500	1,500	(*)
Pettus Refining Co., Pettus	1,000	500	400
Phoenix Refining Co., San Antonio	500	400	400
Pioneer Oil & Refining Co., Somerset	2,000	1,200	800
Price Refining Co., San Antonio	500	(*)	(*)
Rado Refining & Producing Co., McAllen	500	300	200
Texas Co., San Antonio	3,000	3,000	3,000
Texas Petroleum Products Co., Somerset	1,500	250	250
Total	28,300	16,100	14,245

*Shut down.

ARKANSAS

Company and location—	Daily capacity	Aver. daily runs February	Aver. daily runs January
Berry Asphalt Co., Waterloo	2,000	1,100	1,100
Henry H. Cross Co., Smackover	6,000	3,000	3,000
Lion Oil Refining Co., El Dorado	12,000	6,500	6,500
Macmillan Petroleum Products Co., Norphlet	2,300	2,000	2,000
Ouachita Valley Refining Co., El Dorado	2,500	(*)	(*)
Root Refining Co., El Dorado	10,000	5,000	5,300
Simms Oil Co., Smackover	3,000	(*)	(*)
Stephens Refining Co., Stephens	750	250	250
Total	38,550	17,850	18,150

*Shut down.

NORTH CENTRAL TEXAS

Company and location—	Daily capacity	Aver. daily runs February	Aver. daily runs January
All State Refining Co., Thrall	2,300	(*)	150
Archer Refining Co., Megargel	1,000	200	300
Atlantic, Pacific & Gulf Refining Co., Wichita Falls	5,000	100	100
Baird Refining Co., Baird	1,400	800	800
Canyon Oil & Gas Co., Inc., The, Cisco	500	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	3,800	4,000
Empire Oil & Refining Co., Gainesville	5,000	(*)	(*)
Exchange Petroleum Corp., Albany	500	200	200
Falls Refining Co., Wichita Falls	2,000	300	300
Gratex Refining & Fuel Co., Graham	500	200	200
Gulf Refining Co., Fort Worth	10,000	3,600	4,000
Gulf Refining Co., Sweetwater	5,000	2,500	4,350
Haskell Oil Refining Co., Breckenridge	200	(*)	(*)
Hightower Oil & Refining Corp., Brownwood	750	300	250
Hill Refining Co., Ballinger	80	80	80
Jacksboro Refining Co., Jacksboro	50	50	50
LaSalle Petroleum Co., Burkburnett	3,500	280	180
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	4,370	4,370
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	(*)	(*)
Marathon Oil Co., Fort Worth	5,000	3,000	3,000
Mouray Refining Co., Hawley	600	235	250
Meunster Refining Co., Meunster	300	150	150
New Deal Refining Co., Abilene	200	(*)	(*)
Nolting Refining Co., Sweetwater	1,000	(*)	(*)
Norgold Refining Co., West Olney	400	210	200
Olney Oil & Refining Co., North Olney	3,000	1,500	1,500
Omega Refining Co., Brownwood	200	(*)	(*)
Phoenix Refining Co., Hawley	800	300	(*)
Panhandle Refining Co., Wichita Falls	5,000	1,800	2,000
Paragon Refining Co., Leuders	400	125	125
Pentex Refining Co., Echo	400	(*)	(*)
Pilot Point Refining Co., Pilot Point	500	100	100
Sinclair Refining Co., Fort Worth	5,000	2,500	1,800
Southtex Refining Co., Trent	250	(*)	(*)
Southland Refining Co., Olney	1,000	(*)	(*)
Starlight Refining Co., Inc., Ballinger	500	300	300
Star Refining & Producing Co., Fort Worth	1,200	500	500
Superior Refining Co., Tiffin	800	(*)	(*)
Taylor Refining Co., Taylor	6,000	800	800
Taxman Refining Co., Wichita Falls	3,500	(*)	(*)
Texas Pacific Coal & Oil Co., Fort Worth	3,000	2,500	3,000
Texas Pacific Coal & Oil Co., Caddo	1,000	160	600
Tucker Refining Co., Wichita Falls	200	130	130
Waggoner Refining Co., Electra	6,000	2,500	2,725
Watt Refining Co., Brownwood	200	200	200
Total	108,580	33,790	36,710

*Shut down.

WEST TEXAS AND PANHANDLE

Company and location—	Daily capacity	Aver. daily runs February	Aver. daily runs January
Active Oil Co., Arno	1,500	(*)	(*)
Aero Refining Co., Pecos	220	100	200
Coltex Refining Co., Colorado	12,500	6,230	3,500
Concho Refining Co., San Angelo	250	100	120
Cosden Oil Co., Big Spring	12,500	6,000	6,500
Danciger Refineries, Inc., Pampa	6,500	4,800	5,500
Gibson Oil Corp., Magic City	250	150	(*)
Howard County Refining Co., Big Spring	1,500	300	150
Mertzon Refining Co., Mertzon	100	20	20
McNutt Refining Co., El Paso	2,000	600	600
Panhandle Refining Co., Kings Mill	2,000	1,400	1,400
Paramount Refining Co., San Angelo	2,000	(*)	(*)
Pasotex Refining Co., El Paso	14,000	6,000	5,500
Phillips Petroleum Co., Borger	50,000	21,400	21,290
Shamrock Oil & Gas Co., Sunray	2,000	1,500	1,400
Shamrock Oil & Gas Co., Meldavis	1,500	1,200	1,200
Sinclair Refining Co., El Paso	2,500	600	600
Texas Co., El Paso	2,000	900	700
Texas Co., Amarillo	4,000	3,000	3,000
West Texas Refining Co., Pecos City	6,000	(*)	(*)
Wickett Petroleum Co., Wickett	2,500	600	400
Total	125,820	54,900	52,080

*Shut down.

Bureau of Mines Report for December

Crude Petroleum: Crude oil production in the United States in 1934 totaled 909,345,000 bbls., according to preliminary data compiled by the Bureau of Mones, Department of the Interior. This was less than 1 per cent above the output in 1933, although demand increased 6 per cent. The production in December, 1934, averages 2,420,000 bbls. daily, a gain of 5,000 bbls. over the average in November. Production in the various states in December remained virtually unchanged from November. The largest change occurred in East Texas, where production averaged 430,000 bbls., compared with 445,000 bbls. in November. This decline of 15,000 bbls. was compensated by small gains in other parts of Texas, in Kansas, and at Oklahoma City.

Crude runs to stills in December were 75,976,000 bbls., which brought the total for 1934 to 893,302,000 bbls. This was 32,048,000 bbls. higher than in 1933, but 94,406,000 bbls. below the peak of 1929. Another material withdrawal from crude-oil stocks was made in December, bringing the total as of the end of 1934 to 337,085,000 bbls. This represented a net withdrawal of 17,220,000 bbls. for 1934.

Refined Products: A new annual record for domestic demand of motor fuel was indicated in the preliminary data, the total for 1934 of 406,269,000 bbls. being 2,851,000 bbls. higher than the previous high of 1931. However, the record of exports of motor fuel was less encouraging, as the total for 1934 of 24,819,000 bbls. was 4,502,000 bbls. less than in 1933 and 20,897,000 bbls. below the level of 1931. The indicated domestic demand for motor fuel in December, 1934, amounted to 30,517,000 bbls., or a daily average of 984,000 bbls. Compared with December, a year ago, this represents a gain of nearly 7 per cent, which, following the abnormal gains reported in October and November, climaxed a year that, as far as the domestic demand for gasoline is concerned, exceeded even the most optimistic estimates. In accordance with the program of building up depleted inventories, finished gasoline stocks increased 4,119,000 bbls. in December, totaling 47,921,000 bbls. on December 31; this was 7,687,000 bbls. below the comparable total a year ago.

The indicated domestic demand for the majority of the other major refined products in 1934 was higher than in 1933. The increase in domestic demand for kerosene in 1934 was 5,476,000 bbls. or 14 per cent; in gas oil and fuel oil, 15,066,000 bbls., or 5 per cent; and in lubricants, 1,345,000 bbls., or 8 per cent. On the other hand, the demand for wax declined materially.

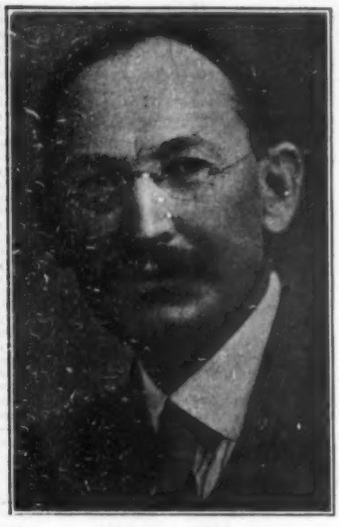
According to the Bureau of Labor Statistics, the price index for petroleum products during December, 1934, was 49.8, compared with 50.5 in November and 51.6 in December, 1933.

The refinery data of this report was compiled from refineries with an aggregate daily recorded crude-oil capacity of 3,519,000 bbls. These refineries operated during December at 70 per cent of their capacity, given above, compared with a ratio of 69 per cent in November.

David White, Geologist, Dies in Washington, D. C.

David White, 72, a member of the U. S. Geological Survey from 1886, passed away while asleep at his home in Washington last week. He had been in poor health for some time but had been able to go the survey office regularly.

A native of Palmyra, N. Y., Mr. White attended Cornell, receiving the bachelor



DAVID WHITE

of science degree in 1886, and doctor of science in 1924 at University of Cincinnati and University of Rochester; and at Williams College in 1925. Joining the survey in 1886, he became its chief in 1903, and when health forced him to surrender part of its work he was made principal geologist. He had been curator of paleobotany of Smithsonian Institute since 1903, and was an associate in the Carnegie Institution. He was a prodigous writer of bulletins, pamphlets and articles on geology and paleontology, and was affiliated with the Geological Society of America, Botanical Society of America, Paleontological Society of America and American Institute of Mining and Metallurgical Engineers. He was honorary member of the American Association of Petroleum Geologists since 1921.

Foreign recognition was accorded him in 1934 when the Institute of Petroleum Technologists of London, England, awarded him a medal for distinguished service. Presentation was made by Sir Boverton Redwood.

He was last in Tulsa for the G.S.A. meeting in 1932.

NEW OFFICE IN TULSA

The Lane-Wells Co., of Los Angeles, Calif., manufacturer and operator of the new type gun perforator for penetrating casing in wells, announce the opening of a branch office by Walter T. Wells at Room 327 Philcade Building, Tulsa, on February 11. This office will be the headquarters of the company in this area, and a new fully equipped truck with perforating gun and magnet for removing iron and steel scrap from wells will be located at a field office in Oklahoma City within a few days.

LOOPING PART OF LINE

The Great Lakes Pipe Line Co. has let a contract for the construction of 20 miles of 4-inch line to parallel that much of the existing 4-inch line which the company has between Muskogee and Okmulgee, Okla., a distance of 32 miles. No new business is involved and the additional line is for the purpose only of speeding up the rate of flow between the two points and reducing the amount of gasoline which the Muskogee shipper, the Pure Oil Co., is now compelled to keep in transit at the present low rate of flow.

East Texas Shipments Continue to Gain as Products Are Released by Courts

By L. E. BREDBERG

KILGORE, Tex., Feb. 11.—Refined products shipments from the East Texas Field continue to gain each week since federal and state courts granted injunctions allowing movement of several hundred thousand barrels of products purchased or manufactured prior to December 10 when the Railroad Commission's tender order became effective. Shipments of products increased by 735 cars this week over the past week. Movements for the week follow:

	Cars	Gallons
Gasoline	972	7,872,250
Fuel oil	581	5,454,000
Topped crude	426	3,785,500
Residuum	122	1,046,210
Distillate	120	990,310
Kerosene	109	880,835
Casinghead gasoline	135	1,171,550
Gas oil	59	486,655
Crude oil	68	613,516
Total	2,592	

Of the cars shipped, 1,536 went out untendered.

One operator sought an injunction before the Federal Court at Tyler this week, to move 200,000 bbls. of fuel oil. A Railroad Commission chemist said the tanks contained crude oil. A refiner's chemist said the tanks contained by-products. Judge Bryant called a recess to have an impartial chemist test the commodity in the tanks. Next day the judge granted an injunction against the commission, allowing movement of only 20,000 bbls. of pit oil. He was convinced the remainder was crude oil and denied the injunction for moving it.

F. W. Fischer, attorney for the A. & P. Pipe Line Co. had applied for an injunction to move 112,000 bbls. of crude from the field, but later asked hearing be postponed indefinitely, stating his clients had made arrangements with Colonel Thompson to have the three members of the commission hear the application for a tender.

A. L. Weiss, charged with false affidavits in application for injunctions to move products, was indicted by a Travis County grand jury. The commission could not find a large part of the products, nor the tanks or tank farms in some instances.

The Texas house of representatives has passed, 114 to 5, a bill to curb the powers of district courts to grant injunctions restraining enforcement of Railroad Commission orders, and sent it to the senate for action. This bill requires notice be given the commission of application for injunction and opportunity to be heard.

Several temporary injunctions permitting movement of products were voided this week at Austin. Hearing on injunctions restraining railroads from shipping products interstate without commission tenders has been postponed until next week. A decision denying such injunctions is anticipated, and preparations are being made accordingly.

More injunctions are being applied for every day for the movement of products. Men with the commission and field men say as fast as tanks and pits are drawn upon in some instances more oil, or products is run into them.

W. D. Power, commission auditor, has urged refiners, brokers and marketers to file inventories as required by the commission, not later than February 15, to include inventory as of December 10 and all receipts and deliveries from that date until February 1.

Up to 7 a.m., February 3, 483,280 bbls. of refined products had been shipped out of the field under injunctions granted by state and federal courts. Twenty-seven different companies participated. Since there have been many more shipments made by the injunction route.

There were 30 refineries operating in the field this week, average daily runs to them reported at 52,525 bbls., a gain of over 4,000 bbls. per day. Pipe line runs increased from 407,620 bbls. last week to 436,000 bbls. per day this week. Tank car shipments of crude oil averaged 2,087 per day this week, where last week they were only 514. Overproduction in the field was said to be a little lower than last week, or around 43,000 bbls.

Late Fields

OKLAHOMA

February daily average allowable production in the Crescent Pool will be 3,309 bbls.; Edmond Pool, 1,223 bbls.; Fitts Pool 7,366 bbls.; Lucien Pool, 8,480 bbls.; and Polo Pool, 2,367 bbls.

J. E. Crosbie, Inc., completed No. 4 Dawes Harden, SE SW NE Section 30-2-7, Fitts Pool, Pontotoc County. It flowed 630 bbls. the first hour, 552 bbls. the second, and 480 bbls. the third.

The important test of Carter and others in the NE NE NE Section 7-13-3w, a mile south of production, in the Edmond district, Oklahoma County, tested salt water when bailed on Monday. It may be plugged back and tested. The hole had been drilled to 6,858 feet.

KANSAS

Shell Petroleum Corp.'s No. 3 Ploog, CEL SW Section 33-18-9w, Rice County, Kansas, swabbed 455 bbls. in eight hours from Siliceous lime at 3,216-21 feet, total depth.

GULF COAST

HOUSTON, Tex., Feb. 12.—Stanolind Oil & Gas Co.'s No. 1 J. W. Thorpe, in the J. M. Bennett Survey No. 100, southeastern Waller County, opened a new producing area when it made an estimated 4,000,000 feet of dry gas per day, with a distillate odor, through a one-quarter inch choke on tubing, with gas pressure building up to 2,500 pounds. Production is from the upper Saline Bayou formation at a plugged back depth of 7,475 feet.

RETAIL PRICE CHANGES

(Continued from Page 30)

.7 cent in Milwaukee; reduced tank wagon kerosene 1.5 cents in Detroit; advanced tank wagon and station gasoline .2 cent in Grand Rapids and Saginaw; reduced tank wagon gasoline .3 cent and station gasoline one-half cent in Evansville; advanced tank wagon kerosene 1.5 cents in South Bend; reduced tank wagon kerosene .1 cent in Huron; reduced station gasoline .8 cent and tank wagon kerosene 1.8 cents in Springfield; reduced tank wagon and station gasoline .3 cent and tank wagon kerosene 1.2 cents in St. Louis; advanced tank wagon kerosene 1 cent in St. Joseph; reduced tank wagon kerosene 1.5 cents in Wichita, advanced tank wagon gasoline 1.1 cents and reduced station gasoline .2 cent in Bartlesville.

Standard Oil Co. of Nebraska, January 24, advanced station gasoline 1.7 cents in McCook; February 6, reduced tank wagon and station gasoline .3 cent. January 24, advanced tank wagon kerosene .8 cent in North Platte; February 7, reduced it .8 cent. February 6, reduced tank wagon and station gasoline .3 cent in Omaha, Norfolk and Scotts Bluff; reduced tank wagon gasoline .3 cent and advanced station gasoline .7 cent in North Platte.

Socony-Vacuum Oil Co., Inc., February 8, advanced tank wagon and station gasoline one-half cent in metropolitan New York and Brooklyn and Queens.

Magnolia Petroleum Co., February 8, reduced tank wagon kerosene 2.5 cents in San Antonio.

WASHINGTON NEWS

(Continued from Page 12)

is quite powerful in the Congress, but it is not believed quite strong enough to overthrow the wishes of the President. However, labor's forces are growing stronger and sentiment in favor of a 30-hour week is increasing. For that reason administration forces are hoping to get favorable action in the very near future.

Section 7(a) of the recovery act, the controversial clause giving labor the right to organize and bargain collectively without interference by employers, is expected to be proposed in its original form. The National Labor Relations Board is heartily in favor of this, for if this section is changed the members feel that all the work that has been done in the past in construing and interpreting this section, as well as decisions outlining its scope, would be undone. If a new law is substituted for this the board would be forced to start from the beginning again, the work of the last year and a half going for naught.

Labor will doubtless assail any attempt to get this measure past Congress, but it is believed legislation of this type will pass both Houses. Industry, it is expected, will press for changes also, but, if the provisions regulating industry are relaxed a little, giving industry more opportunity to be self-governing it is not expected any serious opposition from this source will develop.

This general legislation will cover the petroleum industry unless the industry is specifically excluded by law. There is no apparent possibility of this exception being placed in the law, and it is not expected that it will be unless a federal control law is passed by Congress prior to the enactment of the new NRA.

Despite the fact that the Petroleum Administrative Board, through its chairman, Charles Fahy, has stated to verious members of Congress that its belief in specific and comprehensive legislation for the control of at least the production branch of the industry, and perhaps the refining and marketing ends also, there is extremely small chance of such legislation being passed at this session of Congress. Legislation of this type would be the only method of excluding the industry from the NRA.

To Raise Gasoline Tax a Cent for Crossings

Rumors of a pending increase in the federal gasoline tax are becoming more and more persistent. These rumors are caused by the talk of eliminating railroad grade crossings through the operation of the Public Works Administration. Both Administrator Ickes and Admiral Peoples, chief of the procurement division of the Treasury Department, have stated that is one way of paying part of the cost of this work.

Administrator Ickes has said he believes the highway users, who would be benefited by the elimination of this dangerous condition, should pay their share of the bill. It has been informally suggested by him that this work could be financed by the addition of 1 cent on the federal gasoline tax, a tax on railroad passenger fares, a tax on Pullman tickets, and a tax on freight rates. From these sources, he claims, enough money could be raised to finance the project on a nation-wide scale. It has been learned this plan was discussed with the President, at some length, at Warm Springs, Ga.

Various estimates of the amount which it would be necessary to expend to eliminate these crossings have been made, ranging from $500,000,000 down to around $200,000,000. It would be safe to assume, however, that the figure would be closer to the $500,000,000 figure, and that the gasoline tax would pay a very considerable portion of that amount.

TEXAS CO. OF CALIFORNIA

C. E. Olmsted was re-elected president at the annual meeting of the Texas Co. of California, and J. A. Bermingham, R. T. Herndon, L. R. Holmes and H. W. Dodge were elected vice presidents.

Reported Imminence of Major Buying Program Aids Chicago Oil Market

By SPECIAL CORRESPONDENT

CHICAGO, Feb. 11.—The reported imminence of a new major company gasoline buying movement is having the effect of steadying and stiffening spot gasoline in the market here, but not much else. As this is written, prices are still near the low point, although offerings at low prices are not so numerous as they were. The general impression here is that the market will be aided considerably by this anticipated buying, which is expected to clear up the distress material and which many believe will result in substantially higher prices.

In anticipation of improvement in the tank car market, jobbers, although they are not buying to any extent in the open spot market, are forwarding shipping instructions against their contracts at a rapid rate. Some refiners report they have booked more contract business than in many months. They take this as an indication that jobbers also look for an advance. However, jobbers do not look for it sufficiently to make them buy heavily in the spot market. Jobbers are now enjoying a fairly good volume of business for this season, despite spotty and to some extent unfavorable weather.

Good Consumption Expected

There is a steady, continuing demand for quality grades of gasoline at retail. The new cars are coming off assembly lines in large quantities and many unfilled retail orders are in the hands of dealers. Some buyers have waited and are still waiting for new cars. This is taken as indicating a large demand in the coming months for good gasoline, in view of the continued trend in new motor cars toward higher compression ratios. The major companies and many jobbers are featuring the better products more than ever. With the low retail differential between third grade and regular grade gasoline, the latter is accounting for by far a greater share of the volume than both third grade and premium combined.

Contracts for 1935 are being signed in a good number of cases where they have not been signed previously. These contracts do not differ in any great degree from those of last year. Some of them, however, do omit reference to "entire requirements" of the buyer and name specific amounts of material. In other words, this is just one more case where efforts are being made to safeguard against possibility of market disturbance which was witnessed some months ago when low tank wagon prices caused many distributors to buy from others at tank wagon when the latter held unlimited contract arrangements.

Sentiment Better

Sentiment on the whole over the outlook here is rather optimistic. The extended debate over various possible types of regulation and control is awakening echoes in the marketing trade, and there is a considerable sentiment making itself felt for no extension of control or at least for a state type of control. The marketing trade is hostile to increased federal activity in this direction, to some extent, although some support of this program is seen here and there. A great deal of criticism is still heard over the large number of code violations and failure to prosecute under the provisions applying to various abuses. There is some feeling in favor of code modification, in several important respects.

Kerosene

Kerosene is the center of considerable interest. Stocks are not overly large. East Texas is not considered as likely to upset the koresene market, and a large farm demand is looked upon as being quite likely to develop in the next four to six

(Continued on Page 37)

Crude Oil Prices

(Continued from Page 29)

Humble Oil & Refining Co. and Texas Co. Effective September 20 in Salt Flat by Shell Petroleum Corp.

Rocky Mountain States

Iles, light (Sept. 29, 1933)	$.96
Iles, heavy (Sept. 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.80
Fort Collins and Wellington, Colo. (June 17)	(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)	1.01
Frannie, light (May 1, 1934)	.70
Frannie, heavy (Sept. 29, 1933)	.63
Salt Creek and LaBarge (Sept. 29, 1933)	
See Stanolind Mid-Continent price schedule	
Grass Creek, light (Sept. 29, 1933)	1.18
Grass Creek, heavy (Sept. 29, 1933)	.62
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Lance Creek (Dec. 16, 1932)	.92
Hudson (June 2, 1931)	.65
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome:	
Below 18° (July 1, 1934)	.52
18° and above (July 1, 1934)	.62
Torchlight (Sept. 29, 1933)	1.15
Greybull (Sept. 29, 1933)	1.18
Pondera (Sept. 29, 1933)	1.25
Sunburst (Sept. 29, 1933)	1.35
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)*	.75

Note—Salt Creek, Torchlight, Elk Basin, Grass Creek, Frannie, Greybull, Hogback and Iles by Stanolind Oil & Gas Co. Elk Basin, Grass Creek light, Big Muddy, Rock Creek and Sunburst by Ohio Oil Co. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective September 29, 1933, by Humble Oil & Refining Co. and other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro. Hamilton Dome, Wyo., by Stanolind Oil & Gas Co. Pondera, Mont., by Ohio Oil Co. (Stanolind Oil & Gas Co., effective January 1, 1935, posted $1 per barrel in Pondera.)

*Continental Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$.70
Tullos, Urania, La. (Jan. 13, 1934)	.87
Nevada, Ark. (Sept. 29, 1933)	.80
East El Dorado (Sept. 29, 1933)	.70
Converse, La. (Mar. 17, 1934)	1.03
Elm Grove, La. (Sept. 29, 1933)	.75
Holly, La. (Nov. 17, 1934)	1.03
Pleasant Hill, La. (Mar. 17, 1934)	1.03
Zwolle, La. (Mar. 17, 1934)	1.03
Champagnolle, Ark. (Mar. 17, 1934)	.81
Lisbon, Ark. (Mar. 17, 1934)	1.03
Stephens, Ark. (Sept. 29, 1933)	.70
Urbana, Ark. (Mar. 17, 1934)	.60
Other fields	(See gravity table)

Note—Smackover: Effective September 29, 1933, Texas Co., Magnolia Petroleum Co., Standard of Louisiana, Louisiana Oil Refining Corp., Gulf Refining Co. and Phillips Petroleum Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co., Nevada by Standard Oil Co. of Louisiana. Urbana posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co. Converse, Holly, Zwolle and Urbana by Standard Oil Co. of Louisiana; Elm Grove by Simmons Oil & Refining Co.; Pleasant Hill by Standard Oil Co. and Magnolia Petroleum Co. Champagnolle by Standard Oil Co. and Lion Oil & Refining Co.

Eastern States

TIDE WATER PIPE CO.
(Effective Feb. 4, 1935)

Bradford, Pa.	$2.35
Allegany, N. Y.	2.35

SOUTH PENN OIL CO.
(Effective Feb. 4, 1935)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$2.35
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.02
Pennsylvania Grade Oil in Eureka Pipe Line lines	1.97
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.87
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Oct. 2, 1933)	1.37

PENNZOIL CO.
(Effective Feb. 4, 1935)

Pennsylvania Grade Oil in National Transit Lines:	
Group A Includes Cochran, Franklin, Hamilton and Doolittle districts.	$2.27
Group B Includes Titusville district.	2.36
Group C Includes Turkey and Tidioute districts.	2.25
Group D Includes Bear Creek and Porkey districts.	2.24
Group E Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacey and Kinsua districts. Price depends on length of pipe line haul to plant at Oil City.	2.21

PURE OIL CO.
(Effective Jan. 4, 1935)

Cabin Creek, W. Va.	$1.83
Bradford Hollow, W. Va.	1.83
Kelly Creek, W. Va.	1.77

CREW-LEVICK CO.
(Effective Jan. 4, 1935)

Oil City-Titusville	2.13

Middle Western States

OHIO OIL CO.

Lima (Feb. 1, 1935)	$1.15
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Western Kentucky (May 26, 1934)	1.03
Midland, Mich. (Sept. 30, 1933)*	1.03
West Branch, Mich.	.86
Oceana, Mich. (Oct. 6, 1933)	.90
Somerset, Ky. (Sept. 30, 1933)	1.23

*Posted by Pure Oil Co. and Simrall Pipe Line Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted prices. West Branch, Mich., posted by Simrall Pipe Line Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Canada

Ontario (September 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (May 21, 1934):†	
Clear naphtha	$2.55
Discolored naphtha	2.27
Crude oil, 50 gravity	2.13
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd. and Regal Oil & Refining Co.

Mexico

Panuco*	$1.01

*F.o.b. ship, based on January transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA

(Effective September 6, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Long Beach	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda, Brea Canyon	Athens-Rosecrans	Torrance	Richfield	Whittier, La Habra	Montebello	Santa Fe Springs	La Habra-Coyote	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Coyote
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	$.65	$.65	$.65	$.65	....	$.65	$.57	$.57	$.57	$.65
15-15.9	.65	.65	.69	.69	.66	.69	....	.66	.65	.65	.65	....	.65	....	....	....	.65
16-16.9	.66	.65	.72	.73	.69	.73	....	.69	.67	.68	.65	....	.65	....	....	....	.65
17-17.9	.69	.65	.75	.76	.73	.76	....	.72	.70	.71	.65	....	.68	....	....	....	.68
18-18.9	.72	.65	.78	.80	.76	.79	....	.75	.74	.74	.65	....	.71	.61	.61	.59	.71
19-19.9	.75	.65	.81	.83	.80	.82	....	.78	.78	.78	.65	....	.74	.64	.65	.62	.74
20-20.9	.78	.68	.83	.87	.83	.85	....	.81	.82	.81	.66	....	.78	.67	.69	.65	.78
21-21.9	.81	.72	.86	.90	.87	.88	....	.83	.85	.84	.69	$.72	.81	.70	.73	.68	.81
22-22.9	.84	.76	.89	.94	.90	.92	....	.85	.89	.87	.72	.76	.84	.73	.76	.72	.84
23-23.9	.88	.81	.92	.97	.94	.95	$.83	.89	.92	.90	.76	.79	.87	.77	.79	.75	.87
24-24.9	.91	.85	.95	1.01	.97	.98	.86	.92	.97	.93	.80	.83	.90	.81	.82	.78	.90
25-25.9	.94	.89	.98	....	1.00	1.01	.90	.95	1.00	....	.85	.87	.93	.85	.85	.81	.93
26-26.9	.97	.93	1.01	....	1.04	1.04	.91	.98	1.04	....	.89	.90	.96	.89	.88	....	.96
27-27.9	1.00	.98	1.04	....	....	1.07	.97	....	1.08	....	....	.94	.99	.93	.91	....	.99
28-28.9	1.03	1.02	1.07	....	....	1.10	1.01	....	1.11	....	....	.98	1.02	.97	.94	....	1.02
29-29.9	1.06	1.05	1.09	....	....	....	1.04	....	1.15	....	....	1.01	1.05	1.01	.97	....	1.06
30-30.9	1.09	1.10	1.12	....	....	....	1.08	....	....	....	....	1.05	1.09	1.05	1.00	....	1.09
31-31.9	....	....	....	....	....	....	1.12	....	....	....	....	1.08	1.12	1.09	....	....	1.12
32-32.9	....	....	....	....	....	....	1.15	....	....	....	....	1.12	1.15	1.13	....	....	1.15
33-33.9	....	....	....	....	....	....	....	....	....	....	....	1.16	1.18	1.17	....	....	1.18
34-34.9	....	....	....	....	....	....	....	....	....	....	....	1.19	1.21	....	....	....	1.21
35-35.9	....	....	....	....	....	....	....	....	....	....	....	1.22	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	1.26	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	....	....	....	....	1.30	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	1.34	....	....	....	....	....

Additional Standard Oil Quotations

Mountain View—Effective July 3, 1934, the following are the prices of the Standard Oil Co. of California for its current purchases of crude oil at the well in the Mountain View Field: 14 to 19.9 degrees, 57 cents; 20-20.9, 58 cents; 21-21.9, 59 cents; 22-22.9, 61 cents; 23-23.9, 63 cents; 24-24.9, 66 cents; 25-25.9, 69 cents; 26-26.9, 72 cents; 27-27.9, 75 cents, 28-28.9, 78 cents; 29-29.9, 81 cents; 30-30.9, 84 cents; 31-31.9, 87 cents; 32-32.9, 90 cents; 33 degrees and above, 93 cents.

Elwood Terrace—F.o.b. ship, 33 degrees, $1.03; 34 degrees, $1.06; 35-35.9, $1.09; 36-36.9, $1.12; 37 degrees and over, $1.15.

Newhall—14 degrees and over, 57 cents.

McKittrick and Kern River—14 degrees and over, 57 cents.

Wheeler Ridge—14 to 17.9 degrees, 57 cents; 18-18.9, 58 cents; 19-19.9, 61 cents; 20-20.9, 64 cents; 21-21.9, 67 cents; 22-22.9, 70 cents; 23-23.9, 73 cents; 24-24.9, 76 cents; 25 degrees and over, 79 cents.

Kettleman Hills—33-33.9 degrees, 93 cents; 34-34.9, 96 cents; 35-35.9, 99 cents; 36-36.9, $1.02; 37-37.9, $1.05; 38-38.9, $1.08; 39 degrees and over, $1.11.

The Texas Co. posted in Shiells Canyon, South Mountain and Santa Paula as follows: 14 to 17.9, 57 cents; 3 cents added for each degree up to and including 26-26.9 degrees at 84 cents; then 4 cents added for each degree up to and including 30 degrees and over at $1. Company posts Standard Oil Co.'s Montebello prices in Montebello and North Whittier, and posts Standard Oil Co. prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield and Santa Fe Springs, all effective September 6.

General Petroleum Co. posts Standard Oil Co. prices in Athens, Rosecrans and Signal Hill; Alamitos Heights up to 26-26.9; Santa Fe Springs up to 35-35.9; Richfield up to 25-25.9; Bres Canyon and Olinda up to 25-25.9, and Torrance up to 28-28.9.

Union Oil Co., effective September 6, posts same price as Standard Oil Co. in all fields in which both purchases, excepting that in Athens-Rosecrans, Union Oil Co. posts 21-21.9, 72 cents, and 33--33.9, $1.18; 34-34.9, $1.21, and 35-35.9, $1.24.

Associated Oil Co., effective September 6, posted same prices for the same grades as Standard Oil Co. of California, excepting that in some fields its gravity scale stops as follows: Huntington Beach, 26 degrees and over; Seal Beach and Alamitos Heights, 26 degrees and over; Coyote Hills, 23 degrees and over; Richfield, 25 degrees and over; Torrance, 25 degrees and over; Inglewood, 24 degrees and over; Santa Fe Springs, 35 degrees and over; Midway-Sunset, Elk Hills, Buena Vista Hills, 39 degrees and over. Also Associated pays 53 cents for oil of 11 to 13.9 gravity in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

NEWS FOR PETROLEUM REFINERS

Four-Day Conference for Motorists and Mechanics

Under the department of mechanical engineering at the University of Wisconsin a four-day conference has been arranged in which papers will be read on the lubricating and fuel needs of modern automobiles. The conference will include an exhibit and is designed to serve as a short course for station attendants, garage mechanics, fleet operators and motorists generally. The program has been arranged to include talks by Dr. Gustav Egloff of the Universal Oil Products Co., and R. E. Wilkin of the Standard Oil Co. (Indiana). The meetings will be held at the University in Madison, Wis., from February 27 to March 2, inclusive. The following program of papers has been arranged:

Wednesday, February 27

Welcome by Dean F. E. Turneaure.
The Purpose of the Conference, by Prof. G. L. Larson.
State Laws Relating to Quality Requirements for Oil and Gasoline.
The State Oil Inspection Department.
The Principles and Operation of the Automobile (6 reels).
The Story of Gasoline (2 reels).

Thursday, February 28

Methods of Testing Motor Oil.
Methods of Testing Gasoline.
Interpretation and Significance of Oil and Gasoline Tests.
Volatility of Gasoline.
Impurities and Vapor Locking Tendencies of Gasoline.
Detonation and Antiknock Qualities of Gasoline.
Demonstration of Octane Rating.
Carburetor Setting and Gasoline Economy.

Friday, March 1

Modern Developments in the Production of Oil and Gasoline.
Practical Lubrication Requirements of the Different Automotive Lubricating Systems.
Gear and Chassis Lubrication.
High Film Strength Crankcase Oil.
S.A.E. Numbers and A.S.T.M. Standards.
Temperature Effects on Crankcase Oil.
Oil Consumption.
Does Exhaust Gas Need to Be Deadly?

Saturday, March 2

Changes in Crankcase Oil With Use and Possibilities of Its Reclamation.
The Effectiveness of Oil Testing Machines.
The Selection and Purchase of Oil and Gasoline for Fleet Operation.

TO OFFER CHANUTE PLANT

The Altitude Petroleum Corp. has chosen to offer for sale its 5,000-bbl. refinery located at Chanute, Kans. The plant has been idle for nearly a year, closing of the plant being attributed to a shortage of local crude.

The equipment was modernized recently and includes cracking units. No definite date of call has been given other than a whole or part of the plant will be shortly offered to the highest bidder on some plan of sale to be arranged later.

START BAY REFINERY

The Bay Refining Co.'s new 350-bbl. skimming plant near Bay City was to be completed this week ready to start operations with first shipments of crude from Ogemaw County wells.

The new independent plant was erected under the direction of B. W. Roke, engineer, and will start operations with storage capacity of 1,000 bbls.

Improvements in Kansas Refineries Mark Increased Activity for the State

By GEORGE WEBER

As a result of the improving market conditions and the increasing potential production of crude in Kansas, several refiners of the state are effecting changes in equipment and operations. The new activity covers steps for increased economy and greater flexibility and control of operation. The nature of much of the work is replacement of obsolete equipment.

At Eldorado, the Skelly Oil Co. is installing two fractionating towers in connection with its crude distillation unit to obtain a finer cut on the gasoline fraction. One reason for this refinement is to cut out the high boiling end of the gasoline. This high endpoint cut shows a much lessened susceptibility for tetraethyl lead and its exclusion greatly decreases the ethyl requirements for a fixed octane rating. Other recent additions to this plant include an atmospheric still for straightrun asphalt and a flash or vaporization chamber to handle asphalt from either the straightrun or the cracking units.

The Kanotex Refining Co. at Arkansas City is working out a plan by which the crude distillation now carried out in a battery of shell stills will be converted to a pressure distillation operation in revamped Jenkins units. This will consolidate the operating equipment considerable, permitting more flexible operation and conservation of heat by direct charge from pressure distillation to cracking units. The shell stills are situated a distance from this equipment and will be shut down entirely when the conversion is made.

The Eldorado Refining Co. has completed the installation of two fractionating columns at its Eldorado plant. These towers fractionate the cracked stock directly from a pressure distillate to a finished gasoline fraction. In this refinery inhibitors were recently adopted. Use of these inhibitors in the cracked gasoline has obviated the acid treating for gums.

The Dickey Refining Co. of McPherson is adding a debutanizing column to the vapor recovery plant to stabilize the light cut used for blending. Other refiners' plans not yet completed include three new tube stills and miscellaneous fractionating equipment.

Kansas refiners are finding little difficulty in disposing of their products under the present allocation figures. The potential crude production in the State which is the highest in history guarantees refiners a steady supply for some time to come. This tends to add further to plans for improvement and enlargement.

Fuel Research Committee Headed by R. P. Anderson

R. E. Haylett, director of manufacture for the Union Oil Co. and chairman of the Central Refining Committee for the A.P.I., has made the following appointments for the committee: R. P. Anderson, chairman; D. P. Barnard, IV, Standard Oil Co. (Indiana); A. E. Becker, Standard Oil Development Co.; H. W. Camp, Empire Oil & Refining Co.; A. Ludlow Clayden, Sun Oil Co.; T. G. Delbridge, Atlantic Refining Co.; Graham Edgar, Ethyl Gasoline Corp.; E. W. Isom, Sinclair Refining Co.; K. G. Mackenzie, Texas Co.; Walter Miller, Continental Oil Co.; C. C. Moore, Jr., Union Oil Co. of California; G. G. Oberfell, Phillips Petroleum Co.; J. T. McCoy, Tide Water Oil Co.; J. B. Rather, Socony-Vacuum Oil Co., Inc.; T. B. Rendel, Shell Petroleum Corp.; H. G. Smith, Gulf Refining Co.; G. R. Taylor, McColl-Frontenac Oil Co., Ltd.; J. B. Terry, Standard Oil Co. of California; and C. R. Wagner, Pure Oil Co.

IOWA MARKETERS MEET

DES MOINES, Iowa, Feb. 11.—Harry Fee, of the Fee Oil Co., Waterloo, was elected president, and A. L. Lommel, Bartles-Shepherd Oil Co., first vice president, of the Iowa Petroleum Association which held its annual convention here the past week. Officers re-elected were: J. A. Johnston, Johnston Oil Co., Eldora, second vice president; W. E. Scott, Scott Oil Co., Decorah, third vice president; P. A. Jessen, Nelson & Jessen, Exira, treasurer; M. L. Long, secretary. Members went on record in opposition to diversion of gasoline tax money and in opposition to an increase in the gasoline tax rate. They also opposed the state chain store tax bill and the per-mile tax on trucks. They also opposed the plan for blending alcohol with gasoline.

Record Auto Production Strikes Optimistic Note

A marked relationship has existed between new car sales and gasoline consumption, and if this is to be true over the immediate future, optimism is justified on the part of the refiner and marketer.

The automobile industry initiated its 1935 production activities with an output for all American automobile factories of 306,000 units in January, according to a preliminary estimate released by the Automobile Manufacturers Association.

On the basis of this estimate the industry's January output was 65 per cent above that of the preceding month and 87 per cent above the corresponding month of last year. The Associated also revealed that in only 1926 and 1929 has January production exceeded that for this year.

The association's estimate, which is based upon reports of factory shipments, is summarized below:

January, 1935	306,000
December, 1934	185,919
January, 1934	163,811

WISCONSIN TO SET MARGIN

MILWAUKEE, Wis., Feb. 11.—A spread of 5 cents a gallon as a marketing margin between retail price and the tank car price plus freight and tax is expected in the trade to be contained in an order to be issued soon by the State Department of Markets applying to the whole of Wisconsin as a minimum price below which gasoline may not be sold in the State. Heretofore, an order has been in effect in Milwaukee County only. The tank car price to be used is expected to be that published in the Chicago Journal of Commerce. Extensive trade hearings have been held on the question.

Robert G. Stewart to Act as Marketing Counsel

Robert G. Stewart has resigned as director in charge of sales for the Standard Oil Co. of New Jersey, but will continue as sales counsel for marketing subsidiaries of the company. Under Mr. Stewart will be established an organization to serve in analyzing marketing practices and to offer counsel in current and proposed programs of replacement and expansion.

ROBERT G. STEWART

Pay 65 Per Cent More Tax Than Federal Expense 1916

The tax burden of the American motorist in 1934 was $1,214,000,000, or 65 per cent more than was spent by the Federal Government in 1916, according to a statistical study of the Low Cost Roads Association, an organization advocating low-cost highway construction and opposing gasoline tax diversion.

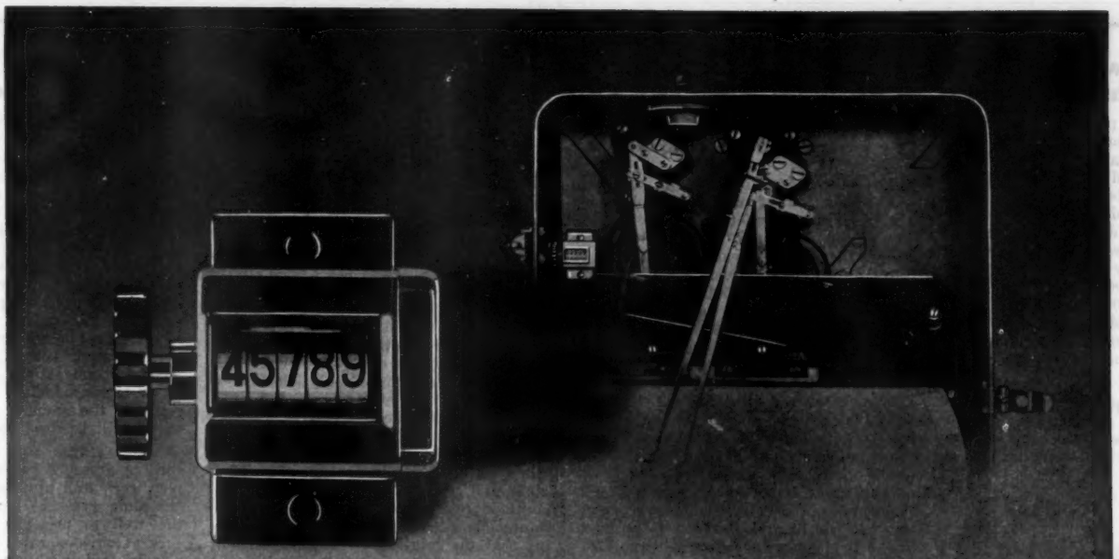
The motorist paid levies to federal, state and municipal authorities in 19 different forms and in those states which have authorized gasoline tax diversion to some other purposes than highway construction, the motorist was subject to double taxation.

Among the means used to extract funds from the motorist, the association reports, were registration fees, drivers' license fees, taxes on tires, tubes, accessories and parts and gasoline and oil taxes paid to federal, state and municipal collectors.

According to the association less money will provide more miles of good, hard surfaced, all year highways, dangerous concentration of traffic on a few highways will be eliminated and state highway systems will become self-supporting with only a nominal gasoline and license tax. The association is working toward the elimination of the high-cost type of highway costing $25,000 to $50,000 per mile on highways carrying less than 1,500 vehicles per day.

TAX DIVERSION BILL

LINCOLN, Neb., Feb. 9.—Governor R. L. Cochran called upon the Nebraska legislature to levy an additional 1-cent tax on gasoline to finance state relief expenditures in accordance with FERA demands.



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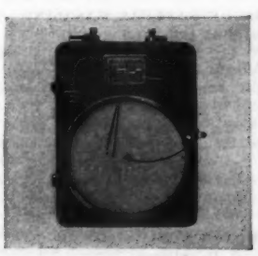

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NATURAL GASOLINE MANUFACTURE

California Plants Close Year With Stocks Higher

Natural gasoline production during December in California amounted to 32,000 bbls. daily, a decrease of 1,000 bbls. under November, and refinery utilization decreased 6,000 bbls. daily, according to the California division of the Bureau of Mines. Production during 1934 increased 1,000 bbls. daily over 1933 and amounted to 33,000 bbls. daily and refinery utilization increased 2,000 bbls. daily and amounted to 29,000 bbls. daily. Stocks decreased 12,000 bbls. during the month but increased 174,000 bbls. during the year and at the end of the year were 2,412,000 bbls.

SUPPLY

Natural Gasoline, Including Liquefied Petroleum Gas

	Dly. av., bbls. Dec.	Nov.
Total production	33,226	33,427
Stock transfer (deliveries) receipts—net	6	(469)
Net total	33,232	32,958
Deduct refinery requirements:		
Run to stills	1,721	2,445
Blended	27,026	32,197
Total	28,747	34,642
Add refinery output:		
Natural gasoline—net	202	161
Net refined production	202	161
Net current supply	4,687	(1,523)
DEMAND		
Domestic demand including bunkers	1,119	875
Shipments to Alaska and Hawaii	3	7
Rail and truck shipments to U. S. points outside Pacific Coast territory	5	5
Demand in domestic market area	1,127	887
Shipments: Pacific foreign inc. Canal Zone	2,246	64
Total market demand	3,373	951
Losses (gains) unaccounted for—net	1,711	1,662
Total current demand	5,084	2,613
Surplus or (deficit)	(397)	(4,136)

NATURAL GASOLINE PLANT OPERATIONS

DECEMBER, 1934

Field—	Gas treated (thou. cu. ft.)	Natural gasoline produced (gallons)
San Joaquin Valley:		
Elk Hills	63,853	103,134
Kettleman Hills	11,535,137	13,914,799
Midway-Sunset	1,152,813	2,151,035
Mountain View	215,608	289,737
Miscellaneous	409,063	450,596
Coastal Region:		
Elwood	230,934	287,635
Lincon	69,394	70,305
Santa Maria	165,564	420,148
Ventura Avenue	3,656,998	3,954,426
Miscellaneous	263,171	302,637
Los Angeles Basin:		
Coyote	598,316	909,100
Domingues	776,487	1,453,796
Huntington Beach	2,254,048	3,312,542
Inglewood	112,269	173,856
Long Beach	1,900,417	6,176,209
Playa Del Rey	164,125	522,101
Richfield	381,936	646,302
Rosecrans	553,432	717,432
Santa Fe Springs	2,829,163	4,739,681
Seal Beach	404,040	566,190
Torrance	104,383	228,522
Miscellaneous	280,764	825,401
Total (all fields)	28,221,915	42,295,627

DISTRIBUTION

(Gallons)

Stocks beginning of mo.	2,865,917	
Production during mo.	42,295,627	
Delivered to refineries		40,928,144
Delivered to jobbers, brokers or blenders		1,387,889
Blended at plants for production of motor fuel		2,505
Losses		39,852
Stocks end of month		2,803,154
Total	45,161,544	45,161,544

Liquefied petroleum gas production, 964,511 gals. = 22,965 bbls.
Motor fuel produced, 4,327 gals. = 103 bbls.

Texas Close to California as the Largest Natural Gasoline Producer in 1934

December added 135,900,000 gallons to the production of natural gasoline for the year just brought to a close according to the Bureau of Mines. Its report shows that in the year 1934 a total of 1,521,100,000 gallons were produced, compared with 1,420,000,000 gallons in the previous year, a gain of slightly more than 7 per cent over 1933.

Contrary to the trend over the past six months, the East Texas Field registered a decrease in production for December. In November the total for the field was 4,900,000 gallons and in December was 4,400,000 gallons. This drop is not large compared with changes in other fields, nor is the total production of East Texas of any great importance compared with the composite of all fields in the country, but considerable interest is centered in the field among marketers in the Mid-Continent because it represents the only active area from which any substantial increase in production might be derived in the immediate future.

In the list of areas no substantial increase or decrease in production is seen for December over November, the principal gains being registered in the Appalachian group, in West Central Texas and in the Kettleman Hills Field of California. Considering the total production of natural gasoline by areas for the year 1934 compared with 1933, the encroachment of Texas upon the top position which California has held for many years, becomes of unusual interest. In 1934 Texas produced 463,400,000 gallons compared with 498,200,000 gallons in California, or California held a credit margin of only about 35,000,000 gallons. In 1933 Texas produced only 366,500,000 gallons while California showed a yield of 496,300,000 gallons, a margin in favor of California of 130,000,000 gallons.

At the present time Texas is making more natural gasoline than any other state and prospects are that Texas will continue to lead until a solution of the Panhandle situation is found, and assuming that the solution of the problem will incur restricting gas production. If the control should take the form of utilizing the gas that is now being blown to the air by transporting it through pipe lines to feed major eastern consuming markets, there would be less change in the natural gasoline production than would be expected were this suggestion to the administration not worked out.

PRODUCTION AND STOCKS BY FIELDS

(Thousands of gallons)

	Production Dec., 1934	Nov., 1934	Jan.-Dec., 1934	Jan.-Dec., 1933	Stocks end of month Dec., 1934	Nov., 1934	Dec., 1934 Used at refineries	Dec., 1934 Naphtha purchased for blending
East Coast	.....	.....	.....	.....	.....	.....	8,148	...
Appalachian	6,300	5,300	54,700	56,300	2,501	1,706	1,596	32
Ill., Ky., Mich.	900	800	8,100	8,400	290	241	9,912	11
Oklahoma	30,200	31,300	358,500	360,500	10,401	11,761	16,800	63
Oklahoma City	9,600	9,600	103,500	96,500	3,054	4,057	(*)	...
Osage County	3,900	4,200	44,900	41,100	2,620	2,337	(*)	15
Seminole	6,200	6,900	84,000	110,800	1,334	1,912	(*)	...
Rest of State	10,500	10,600	124,100	112,100	3,343	3,455	(*)	48
Kansas	2,700	2,700	27,100	24,900	681	1,406	8,610	.....
Texas	43,300	43,500	463,400	366,500	14,103	17,131	28,206	656
East Texas	4,400	4,900	46,400	20,200	413	393	(*)	656
North Texas	1,800	1,800	20,500	25,700	765	660	(*)	...
Panhandle	25,300	25,500	256,400	183,300	11,123	13,528	(*)	...
West Central	7,200	6,700	84,600	77,300	1,094	1,494	(*)	...
Rest of State	4,600	4,600	55,500	59,000	708	1,051	(*)	...
Louisiana	4,000	3,900	41,800	37,000	3,857	807	1,260	...
Arkansas	1,000	1,000	12,800	15,200	171	187	1,134	387
Rocky Mountain	5,200	5,100	58,500	54,900	993	1,247	2,982	...
California	42,300	41,300	498,200	496,300	2,803	2,866	37,422	(*)
Huntington Beach	3,200	3,200	39,000	25,400	(*)	(*)	(*)	(*)
Kettleman Hills	13,900	13,300	153,000	133,500	(*)	(*)	(*)	(*)
Long Beach	6,200	6,000	75,500	88,400	(*)	(*)	(*)	(*)
Santa Fe Springs	4,700	4,700	61,000	80,400	(*)	(*)	(*)	(*)
Ventura Avenue	4,000	3,900	42,700	45,000	(*)	(*)	(*)	(*)
Rest of State	10,200	10,200	126,000	123,600	(*)	(*)	(*)	(*)
Total	135,900	134,900	1,521,100	1,420,000	36,100	37,352	116,130	1,149
Daily average	4,380	4,500	4,170	3,890	.....	.....	3,746	37
Total (thousands of barrels)	3,236	3,212	36,217	33,810	860	889	2,765	27
Daily average	104	107	99	93	...	...	89	1

*Not available.

PRODUCTION AND DISTRIBUTION OF NATURAL GASOLINE

(Thousands of barrels of 42 gallons)

	Dec., 1934 Total	Dly. av.	Nov., 1934 Total	Dly. av.	Jan.-Dec., 1934	Jan.-Dec., 1933
Production	3,236	104	3,212	107	36,217	33,810
Decrease in all stocks	....	.....	462	15	.....	.....
Total	3,236	104	3,674	122	36,217	33,810
Blended at refineries	2,706	87	3,399	113	26,956	24,059
Runs through p. l. in Calif.	53	2	73	2	1,296	1,287
Jobbers, exports, etc.	302	9	130	4	4,713	4,859
Increase in all stocks	26	1	..	...	60	114
Losses	149	5	72	3	3,282	3,491
Total	3,236	104	3,674	122	36,217	33,810

PRODUCTION OF MOTOR FUEL

(Thousands of barrels of 42 gallons)

	Dec., 1934 Total	Dly. av.	Nov., 1934 Total	Dly. av.	Jan.-Dec., 1934	Jan.-Dec., 1933
Refinery gasoline:						
Straightrun	16,881	545	16,453	549	206,486	195,622
Cracked	16,260	525	15,592	520	182,433	180,622
Natural gasoline:						
Production	3,236	104	3,212	107	36,217	33,810
Deduct losses	149	5	72	3	3,282	3,491
Benzol	123	4	114	4	1,600	1,368
Total motor fuel	36,351	1,173	35,299	1,177	423,454	407,932

Fuel Research Unit in Service for Phillips

The natural gasoline division of the Phillips Petroleum Co. has instituted a program of field testing that yields quicker and more effective data than has been possible to secure earlier. A truck has been equipped to serve as a field laboratory. It is equipped to record pressures at the bottom of a flowing well and bottom hole samples of crude. The facts found by these experiments give an insight into what is happening beneath the earth's surface. This information is used to predict the amount of oil contained in a reservoir (pool), to decide upon the most economical way of removing the oil from the producing formation, and to estimate the amount of natural gasoline which will be produced from a pool.

The research unit consists of a recording pressure bomb, bottom hole sampler, reel, and auxiliary equipment. The recording pressure bomb is lowered into the well to measure bottom hole pressure at various rates of flow. The sampler is used to obtain a sample of crude oil at the bottom of a well where it is under pressure. Under this pressure the crude oil contains natural gas dissolved in the oil. The reel holds 10,000 feet of strong wire line which is used to lower the instruments into the well. The reeling device is portable and powered with a small gasoline engine. Auxiliary equipment such as containers for high pressure crude oil, thermometers, pressure gauges, and well head fittings complete the research unit.

Wells in newly developed areas in New Mexico, Texas, Kansas, and Oklahoma have been tested with the unit and plans for next year include a study of all the major pools in which Phillips is interested. It is believed that this unit is the first one of its kind that has been assembled to study oil and gas production. Both the field and laboratory work of this project are being carried on by D. L. Katz, George Shear, and W. H. Barlow of the research department.

Dr. Reed Addresses Wichita American Chemical Society

WICHITA, Kans., Feb. 11.—Dr. E. W. Reed, of Pittsburgh, was the speaker at a local meeting of the American Chemical Society here. In his capacity as Senior Fellow at Mellon Institute, Dr. Reed's work has been on the synthesis of derivatives of the aliphatic compounds found in natural gas and petroleum. This research has been carried out by the Mellon Institute in collaboration with the Carbide and Carbon Chemicals Corporation. Restricting his subject to ethylene and its derivatives, Dr. Reed traced the synthesis of many industrially important chemicals.

Robert E. Puckett, research chemist for the Barnsdall Oil Company is secretary of the Wichita chapter of the American Chemical Society.

CANADIAN IMPORTS

OTTAWA, Canada, Feb. 9.—Official figures just issued show that in November, casinghead gasoline imports into Canada were recorded at 5,081,063 gallons valued at $309,890, compared with 1,878,792 gallons worth $91,657 in October, and 3,620,125 gallons valued at $270,237 in November, 1933.

ADD CLARK COMPRESSORS

Five Clark compressors of 230 horsepower each are to be added to the Westgate Oil Co.'s gas lift operations in the Oklahoma City Field. Construction has been started.

Administrator's Report on Crude Oil Stocks

WASHINGTON, D. C., Feb. 11.—Stocks of domestic and foreign crude petroleum at the close of the week ended February 2 totaled 322,932,000 bbls., according to data compiled by the Bureau of Mines, Department of the Interior, for Petroleum Administrator Harold L. Ickes. In comparison with data for the previous week, this total represents a net increase of 2,362,000 bbls., and comprised an increase of 2,430,000 bbls. in stocks of domestic crude oil and a decrease of 68,000 bbls. in stocks of foreign crude. Inquiry among reporting companies indicates that the crude oil inventory increase resulted from reduced refinery operations, delayed boat shipments, and the customary month-end movement of crude oil from lease storage, not reported weekly, to pipe line, tank farm, and refinery storage.

Current reports of the industry indicate that crude oil production during the week declined approximately 100,000 bbls., amounting to about 2,490,000 bbls. Daily average imports of crude oil were 43,000 bbls., or 50,000 bbls. below the revised average for the week ended January 26. Crude runs to stills amounted to about 2,375,000 bbls., or approximately 100,000 bbls. below the average of the previous week.

STOCKS OF CRUDE PETROLEUM, JANUARY 26 AND FEBRUARY 2, 1935

(Barrels of 42 gallons)

Grade of crude oil—	Jan. 26	Feb. 2
Pennsylvania Grade ..	4,486,000	4,430,000
Other Appalachian ...	987,000	1,002,000
Lima-N.E. Indiana-Michigan	1,078,000	1,131,000
Illinois-S.W. Indiana..	11,434,000	11,427,000
N. Louisiana and Arkansas	9,513,000	9,578,000
West Texas and S.E. New Mexico	30,607,000	31,313,000
East Texas	29,622,000	30,333,000
Other Mid-Continent..	148,740,000	148,425,000
Gulf Coast	18,880,000	19,449,000
Rocky Mountain	27,505,000	27,474,000
California	34,494,000	35,215,000
Domestic crude	317,347,000	319,777,000
Foreign crude	3,223,000	3,155,000
Total .*.....	320,570,000	322,932,000

*Represents approximately 98 per cent of total stocks in the United States, exclusive of producers' stocks.

Reported Buying Program Aids Chicago Oil Market

(Continued from Page 33)

weeks. Better conditions among farmers is one reason advanced.

Heating Oils

Easiness and spottiness in heating oils, especially distillates, is one of the drawbacks to the general burning oil market and of course it is retarding kerosene to some extent. Supplies have been offered in quantities which have more than met the demand, in view of the fact that weather has been mild. The early winter was colder than normal, but since that time weather has been against these products. Good gas oils are quiet.

Fuel, Gas Oils

No special improvement has yet been recorded in the heavier fuels and gas oils. Holders of contracts are taking out slightly larger amounts in some cases, such as steel companies but in general it is a backward, dull market.

Lubricants

Lubricants are firm but extremely quiet and devoid of much interest. The tone is better since the turn in the Pennsylvania crude market recently. Motor oil gallonage at retail is reported as being fairly good for the season.

Coke

Petroleum coke business remains quiet, with a steady undertone. Principal sellers say they are able to move all the material coming through. Prices are unchanged.

Naphthas

There has been a hint of instability in certain sections of naphthas and solvents, although basis tank car prices are not much, if any, changed. Buying is irregular but the total volume is good.

Wax

The tone of refined wax is definitely easier, in keeping with lower crude prices. Buying is limited and stocks are now considered rather large for best handling marketwise. Currently, demand both foreign and domestic, is quite limited.

Substantial Increase in Domestic Demand

(Continued from Page 14)

consumers, a gain of 7.7 per cent over 1933 and a .7 per cent gain over the peak year of 1931. This gain over 1931 in the face of the fact that there were fewer motor vehicle units in operation is said to reflect greater consumption per car plus an expansion in demand outside the automobile industry.

This gain in domestic demand enabled the refining industry to hold 93.6 per cent of its peak requirements of 1930 despite the fact that the export demand in 1934 was only 37.8 per cent of the 1930 peak. Gasoline exports, which have been declining steadily since 1930, decreased over 15 per cent in 1934 compared to 1933.

Domestic Kerosene

The fact that the official report shows a 14.2 per cent increase in domestic kerosene demand over 1933 with a gain of over 8 per cent when compared with the peak year of 1925, will be more of a surprise to many than was the new peak in gasoline consumption. Reports on consumption of kerosene comparable to those in the case of gasoline, are not available and the current explanations given for the gain in kerosene demand appear inadequate. It is probable that a complete study of this situation will show that new uses for kerosene as fuel for heat and internal combustion engines will explain the gain. Most refiners are satisfied to know that this unexpected domestic demand has advanced prices to the point where they are the same as gasoline in many refining centers and they are not concerned as to where the demand comes from.

As in the case of gasoline, exports of kerosene, although they increased in 1934, were much less than the peak years, so that the total demand for kerosene was only 87.4 per cent of the 1925 peak.

The available information on heavy fuels and gas oils shows a gain in demand for 1934 over 1933. The demand, however, is only 80 per cent of the peak year of 1929, a condition brought about partially by the import taxes which has shifted bunker business which formerly came to the United States, to foreign ports.

Lubricating Oils and Wax

The trend in demand for lubricating oils is less favorable from the standpoint of refiners in the United States than in the case of the other principal products. Refiners last year had a gain of 7.8 per cent in domestic demand but exports continued to decline so that the total demand increase was only 2.7 per cent and was 76 per cent of the peak year. In the domestic end manufacturers of lubricating oils have recovered only a part of the industrial demand of the boom years and the trend in motor oils is toward decreased demand per car due to improved properties from the standpoint of consumption. In the export end the competition of foreign refiners is becoming more important, the foreign operators obtaining a larger percentage of the business outside the United States.

The past year was highly unsatisfactory from the standpoint of demand for petroleum wax at refineries in this country. Both the export and domestic demands decreased compared to 1933 with a loss of over 27 per cent in total demand. Stocks increased almost 100 per cent. The decrease in demand started as soon as refiners advanced their prices the latter part of 1933. Prices on certain grades have declined in recent weeks and it is anticipated that this situation will result in a return to a normal demand.

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in the small refinery

Do you think you don't need a cracking unit because some of your operations show enough profit to carry the loss on your straight-run gasoline?

If so, please consider this.

Parsons will design and build you a special Dubbs cracking unit that will earn its keep from the start—and then some.

The cracked gasoline it makes will pay its own way—and better.

Your other operations will have a fair chance.

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THE RALPH M. PARSONS CO.
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Sandia Field, Jim Wells County, and the Sinton Area, San Patricio County, Are Showing Oil

SAN ANTONIO, Tex., Feb. 11.—At the close of the week interest in the Southwest Texas district was centered on the Sandia district, northeastern Jim Wells County and the Sinton Field, San Patricio County, where two wells have shown promise of opening the first oil production for the two fields which heretofore have produced only gas.

The possibility of oil production being developed in the Sandia gas field, northeastern Jim Wells County, seems assured by the showing being made by O. W. Killam's No. 4 Wade, which has apparently found a new producing sand from 4,045-51 feet.

Hard sand with an odor of gas was cored from 4,045-48 feet, and oil sand was encountered from 4,048-51 feet. The operators made an eight-minute drill stem test from 4,042-51 feet, with a one-quarter inch choke on bottom, and a five-sixteenths inch choke on top, and tested 250 pounds of working pressure, and seven joints of 39 gravity oil. Seven-inch casing was cemented at 4,049 feet, and the plug was expected to be drilled the first part of the week.

Several gas wells have been completed in the field, and are producing from sand found at around 2,600 feet to 2,900 feet. This test is north of the operator's No. 1 Wade, which was drilled by J. E. Walsh, and later turned to Larco Gas & Petroleum Co., which sold the test to Killam. If No. 4 Wade makes a producer, it is expected to create considerable drilling, with the possibility that some of the old tests which were abandoned, may be deepened to the new horizon.

The Sandia Field is in the Wade Subdivision of the W. D. Wade ranch, in the Casa Blanca grant, and was discovered by means of geological information, based on surface indications. The discovery well was Larco Gas & Petroleum Co.'s No. 1 Wade, completed November 29, 1929, for an initial production of 50,000,000 feet of dry gas per day, from a total depth of 2,917 feet. The nearest oil production is approximately 12 miles to the north in Live Oak County.

Sinton Field

In the Sinton Field, San Patricio County, Heep Oil Corp.'s No. 1-B Welder, north of the town of Sinton, and on the Welder homesite, showed promise of oil production in the 5,400-foot horizon, which heretofore has tested gas, with a spray of distillate, when it cored sand from 5,445-49 feet, and on a 15-minute drill stem test from 5,435-49 feet, tested 330 feet of 39 gravity oil, with a slight show of gas. The test was made through a one-quarter inch choke on top and bottom. Seven-inch casing has been cemented on top of the sand, and the operators are waiting on cement to set. Total depth is 5,449 feet.

Out of a number of tests drilled in the general Sinton area, this is the first real showing of crude oil to be encountered. Plymouth Oil Co.'s No. 2-B Welder in the same area is coring below 6,660 feet, after drill stem test made at around 6,656 feet tested dry. The test will be drilled to 7,000 feet, and the operators are testing every favorable looking sand.

Caesar Field

Another potential producer was registered for the Caesar Field, northwest Bee County, when Luling Oil & Gas Co.'s No. 1 Hudman, an outpost well on the southwest side of the field cored the Pettus sand from 3,039-51 feet, and was completed for an initial production of 60 bbls. per hour on a three-quarters inch choke, with tubing pressure 325 pounds and casing pressure 525 pounds. It is considered the largest producer completed in the county, and by far the largest to be completed in the field. It is a southwest offset to Firm Oil Co.'s No. 1 Grissom, which extended the field southwest a few weeks ago. Two other tests are nearing the pay horizon, and will probably be given a drill stem test this week. Caesar Oil Co.'s No. 3 R. E. Miller, a north offset to the Grissom producer, is drilling below 2,550 feet. Northeast of the Grissom test, Toro Oil Co.'s No. 1 Gardner in the F. Lewis Survey is drilling below 2,495 feet.

Normana District

The possible pool opener of Dirks Brothers, No. 1 Foley, in the Normana district, approximately 1 mile northwest of the old Holzmark gas field, which showed for a producer on a drill stem test made last week, has not been tested and the operators are waiting on the casing to be perforated, after which a test will be made. The test showed 400 pounds of pressure and some drilling fluid last week, and it is regarded as a new strike which is expected to create an entirely new play for Bee County. Sand was topped at 3,407 feet, and the hole is bottomed at 3,427 feet.

Rio Grande City Pool

In the Rio Grande City Pool, southwestern Starr County, Hiram Reed's No. 1 Doyno and Chatfield in Block 6, Tract 21, Porcion 80, extended the producing limits a half mile southwest, when it was completed for 20 bbls. per day flowing through casing under a light gas pressure. It cored saturated sand from 1,365-76 feet, the total depth. The field covers only a small area, and the five or six wells completed are on the pump. The extension test is approximately 2,500 feet southwest of Sioux Oil Co.'s No. 1 Goodrich, in Block 1, Tract 5, Porcion 81, the discovery well, which was completed in 1932.

Wildcat Locations

Three interesting wildcat locations were made in the county, and material is being moved in. One and one-half miles southwest of the Caesar Field, J. K. Hughes is preparing to drill his No. 1 Barroun, located 330 feet from the north and west line of the southwest 40 acres, of the west one-half of the Barroun 1,063-acre tract, in the Charles Baker Survey. Three miles southwest of Worth Oil Co.'s No. 1 Rutledge, in the Charles B. Shain Survey, Dirks Brothers and Early Callaway are moving in material for No. 1 Milster, 4,950 feet from the north line and 990 feet from the east lines of the survey. The Rutledge test, which is fishing at a total depth of 3,424 feet, encountered gas sand from 1,721-33 feet and created considerable interest in that area some time ago. The other wildcat test is 2½ miles east of Normana, and is being drilled by Mid-Texas Oil Co. on its Traveland lease on a 91-acre tract.

West Tuleta Field

Three completions were reported for the West Tuleta Field. Bee. Mills Bennett Production Co.'s No. 2 Martinson made 4 bbls. per hour from a total depth of 3,904 feet through a one-eighth inch choke, with tubing pressure 800 pounds and shut-in casing pressure 1,000 pounds. Tuleta Oil Co.'s No. 5 Skinner and Harris cored the Pettus sand from 3,902-10 feet and was completed at a total depth of 3,920 feet for an initial production of 70 bbls. in 10 hours through a one-quarter inch choke, with 600 pounds working pressure on the tubing and 1,000 pounds shut-in casing pressure. Although no production gauge had been reported for Houston Oil Co.'s No. 4 Strauss, in Block 3, it was reported to be an average well for the field.

Bruni Field

The Bruni Field, Webb County, was extended with production approximately 2,000 feet east when Highland Oil Co.'s No. 4 Bruni made 20 bbls. of oil per hour through a one-eighth inch choke from sand bottomed at 3,411 feet. A recent check of bottom hole pressures made by the Railroad Commission the first of the week shows the average bottom hole pressure for the field to be 1,171 pounds. A test was made of 15 wells throughout the field, and each well tested approximately 1,100 pounds, which reveals a uniform pressure in all parts of the field. The average porosity of the sand is approximately 25 per cent, and based on this figure, the average acreage recovery per acre is estimated at 5,000 bbls. The average sand thickness throughout the field is approximately 10 feet, of which 80 per cent is saturation.

Karnes-Goliad

On the Karnes-Goliad County line, H. H. Wienert has leased the east 240 acres of the C. S. Strawn fee in the John Griffity Survey, and the 280-acre Bodinghaus tract in the Menefee Survey, and proposes to drill a 4,500-foot test to the Yegua sand. The acreage lies on the county line, about 6 miles northeast of the Pettus Field. Several major companies hold considerable acreage around the proposed test.

Frio County

In the Pearsall area, Frio County, Magnolia Petroleum Co. is reported to be taking a block, and is reported to have made tentative location. Humble Oil & Refining Co. is also reported to be making plans for a test in the same general area.

Wildcat Operations in Southwest Texas

Week Ending February 9

BANDERA COUNTY

W. B. Kyle et al's No. 1 Duke, 200 ft. NW line, 150 ft. SW line of J. A. Bennett Sur. No. 7.
Waiting on rig; drlg. wtr. well.

Plateau Oil Co.'s No. 1 Garrison, G.C.&S.F. Sur. No. 506, 1,500 ft. from N and 2,700 ft. from E lines of survey.
Cmtd. csg. 1,181 ft.; to resume drilling.

BASTROP COUNTY

Marts & Beavens' No. 2 Ray Rivers, 1,850 ft. from SE line, 2,050 ft. from NE line of Eliz. Sandifer Sur.
Coring dry Serpentine at 2,045 ft.

BEE COUNTY

Dirks Bros.' No. 1 Foley, 330 ft. N and W lines of Kellar Sur.
Sand 3,409-27 ft.; waiting on shooter.

Dirks Bros. and Earl Callaway's No. 1 Milster, 4,950 ft. from N line, 990 ft. from E line of Chas. B. Shain Sur.
Moving in material.

Arthur W. Gray's No. 1 Rutledge, 3,322 ft. from N line, 250 ft. from E line of 200-ac. tract in B. Q. Hadley Sur.
Location.

Cecil Hagan's No. 1 John R. Scott, 1½ mi. NE of Morgan test.
S.D. 3,926 ft.

R. M. Herod's No. 1 Kimball, 810 ft. from E line, 150 ft. from N line of 110-ac. tract in S. Winship Sur.
Comp.; wtr. well.

Humble O. & R. Co.'s No. 2 Thompson, 466 ft. NW of SE cor. of J. C. Wood tract, Wm. Burke Sur.
Drlg. 1,000 ft.

Mid-Continent Crude Oil Co.'s No. 2 Kimball (Grayburg area), S. Winship Sur.
Standing 3,550 ft.

Mid-Texas Oil Co.'s No. 1 Trabland, 330 ft. from S and E lines of 91-ac. tract, ½ mile E of Normana.
Rigging up.

George Pace et al's No. 1 Goree, C of Blk. 26, Tarver-Hensiee Subd., Thos. B. Barton Sur.
Rigging up.

Worth Oil Co.'s No. 1 Rutledge, 1,000 ft. from N line and 250 ft. from E line of A. Hadley Sur.
Fishing 3,424 ft.; (correction).

BEXAR COUNTY

Campbell's No. 1 Cantu, offsetting Meador's No. 1 Cantau, 150 ft. SW line, Arocha Sur. No. 15.
Drlg. 1,130 ft.

N. G. Carter's No. 1 Ruiz, western part of county; (work over).
T.D. 1,710 ft.; standing.

C. A. Ingersoll's No. 1 Mann, S of Von Ormy in John Christopher Sur.
Rigging up.

Jones & Kieffer's No. 1 LaGrane, NW cor. of tract, 210 ft. each way, F. Rolen Sur.
Set packer at 586 ft.; working on test.

Geo. O'Neil's No. 1 Holly Crouch, NW cor. of 150-ac. tract.
Reaming 1,370 ft.

Duke Phillips' No. 1 Anna Lieck, 450 ft. SE line, 3,500 ft. NE line of 223-ac. tract, J. Liech Sur.
Waiting on orders, 912 ft.

BROOKS COUNTY

Helmrich & Payne's No. 1 Scott and Hooper, 1,320 ft. N and E lines of Blk. 44, Palo Blanco grant.
Drlg. 3,150 ft.; set 10-in. csg. at 785 ft.

CALDWELL COUNTY

Kurz Oil Co.'s No. 1 Kurz ranch fee, 4,600 ft. SW line, 4,300 ft. SE line of Barnard Kiecamp Sur.
S.D. 4,106 ft.

Reedy & Sugs' No. 1 Thos. North Estate, 150 ft. from SE line, 1,290 ft. from SW line of 95.5-ac. tract, A. Floyd Sur.
Setting csg. 2,200 ft.

DEWITT COUNTY

Lefevre & Spice's No. 1 A. C. Wilkins, 660 ft. from N line, 420 ft. from W line of 200-ac. tract, in James Ross Sur.
Drlg. 2,558 ft.

DUVAL COUNTY

Buffalo-Texas Syndicate's No. 1 Esconas, 2,777 ft. from N line, 1,944 ft. from W line of 930-ac. tract in San Francisco grant.
Drlg. 3,926 ft.

Eckert-Peacock et al's No. 1 C. W. Sutherland, 330 ft. N and W lines of SW¼ NE¼ of Sur. 188.
W.O.C. 2,366 ft.

Grimes et al's No. 1 Fitzsimmons, 300 ft. from S line, 150 ft. from E line of Sur. 291.
Drlg. 3,779 ft.

Humble O. & R. Co.'s No. 1 Mucio Vela, 330 ft. S and E lines of N½ of Sec. 42, T.T. Ry. Co. Sur.
T.D. 2,804 ft.; waiting on pump.

W. C. McBride's No. 1-B Haglat, skidded rig from No. 1-A, Sur. 265.
Abd. 2,622 ft.

Intrepid Oil Co.'s (E. R. Thomas) No. 1 Parr, 2,590 ft. S line, 150 ft. E line of Sur. 135, E. H. Valentine Sur.
Drlg. 4,375 ft.

EDWARDS COUNTY

Harry Adams' No. 1 Holman, 1,650 ft. N line, 330 ft. from E line, Sec. 22, C.C.S. D.&R.G.N.G. Sur.
S.D. 602 ft.; showing oil at 520-25 ft. and trying to pull csg.

FAYETTE COUNTY

Clark et al's No. 1 Becker, 750 ft. NW line, 1,300 ft. SW line of 143.74-ac. tract, in A. E. Baker League.
Location.

Ross Fenton's No. 1 Kasper (263-ac.), 2,000 ft from NE line, 1,230 ft. from SW line, of Thos. Green Sur. No. 28.
Location.

FRIO COUNTY

Amerada Pet. Co.'s No. 3 Halff & Oppenheimer, 2,100 ft. from southwesterly NW line, 300 ft. NE line of B. J. Gilman Sur. No. 16.
W.O.C. 2,916 ft.

W. T. Shoemaker's No. 1 M. Roche, 150 ft. SW cor. of Carl Wenzel Sur. No. 139.
Drlg. 1,967 ft.

GILLESPIE COUNTY

Ed L. Nixon's No. 3 Lindig, 12,694 ft. S line, 1,333 ft. W line, Maria Josepha Guerra Sur. No. 41.
S.D. in lime 692 ft.

GOLIAD COUNTY

Magnolia Pet. Co.'s No. 1 Albrecht, 660 ft. N line, 330 ft. SW line of J. P. Reid Sur.
Coring 5,400 ft.

GONZALES COUNTY

Southwestern Dev. Co.'s (Kyle & Von Rossun) No. 1 W. S. Atkinson, 2,054 ft. from N line, 1,034 ft. from E line of 135-ac. tract in S. Y. Reams Sur.
Moving in material.

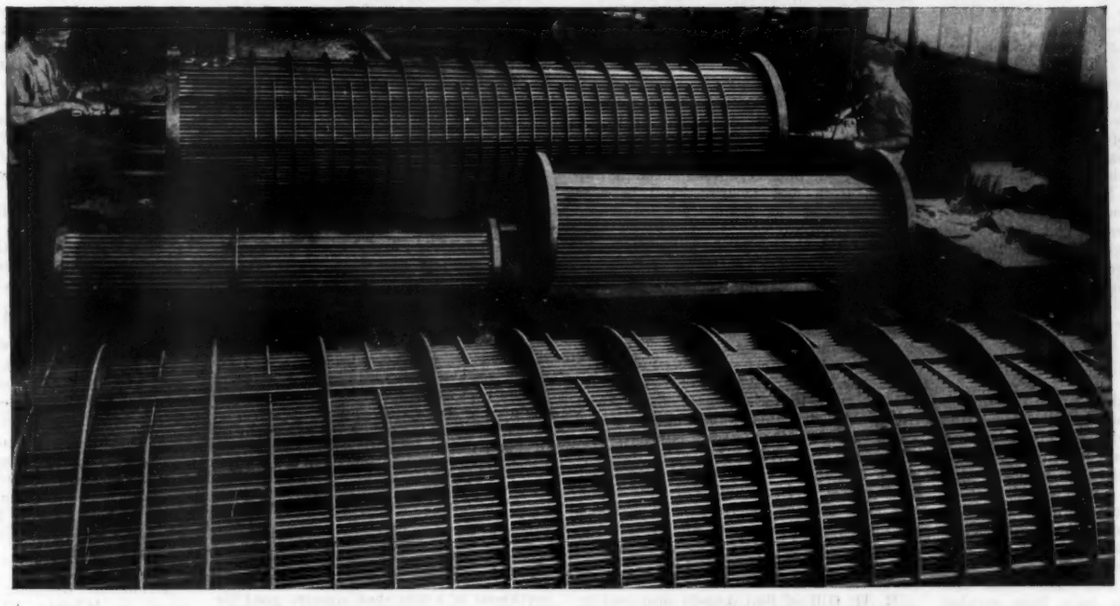
GUADALUPE COUNTY

J. W. Burrows' No. 1 Beuhring, 1,000 ft. S line, 750 ft. W line of Jos. Clements Sur., SW Darst Creek Field.
Location.

A. D. Locke's No. 1 Lowman, 210 ft. from SE and SW lines of 2,500-ac. tract in C. Campbell Sur.
Moving in spudder.

(Continued on Page 47)

47 KELLOGG HEAT EXCHANGERS



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Fisher County Wildcat Looks Like Pool Opener; Sixty Locations in North Texas, 21 in Panhandle

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Feb. 11.—A new pool is apparently in the making in West Texas, a wildcat, 10 miles northwest of the Royston Pool in Fisher County, filling up and heading at 12-hour intervals after topping the sandy lime pay at 3,665 feet and shutting down at 3,670 feet. This discovery, on an 8,500-acre block, three-quarters of which is owned by the Tide Water Oil Co. and one-quarter by Merry Brothers and Perini of San Angelo, filled up 2,000 feet in two and one-half hours and started heading, producing 38.8 gravity oil, similar to the crude produced in the Royston Pool to the southeast. The pay is 100 feet below but also similar to the Royston Pool pay, which reacts successfully to acid, making the possibilities of this new area look appreciably better. Location is 1,320 feet from the north and 660 feet from the east lines of Section 180, Block 2, H.&T.C. Survey, on the Miss Mary E. Howard farm.

Six and five-eighths inch casing is swinging in the hole at 3,450 feet and the water coming with the oil is believed to be from above and behind this casing. This string will either be lowered or a 5⅜-inch string run in an effort to shut off the water preparatory to testing. The owners are now working out an operating agreement. The nearest town is Rotan, 6 miles southwest on the Texas & Pacific Railroad. Humble Pipe Line Co. and Shell Pipe Line Co. have lines serving this area, either of which may connect to the discovery and subsequent wells if a field is assured.

Fisher, Jones and Taylor Counties have been having considerable wildcatting and drilling and leasing during the past year, and this strike will add impetus to interest in this area. The nearest dry hole is northeast in Section 111, Block 1, H.&T.C. Survey. It went to 3,538 feet. A dry hole was drilled about 3½ miles south in the SE cor. Section 116, Block 2. This test was abandoned at 3,815 feet. A field, if one is proven, has room to expand in all other directions.

Taylor County

An interesting feature in one of the counties adjoining Fisher County, in the eastern tier of West Texas, was the entering of an old test abandoned 3 miles south of Abilene, in Taylor County, shooting the pipe in three places and pumping in 1,000 gallons of acid with a 69-bbl. load under 400 pounds pressure. It made a head of oil and gauged 91 bbls. in 36 hours, excluding the first head. It is now shut in, the Clarco Oil & Refining Co. of Fort Worth, leasing more land and clearing titles. The well, on the J. C. Heigh farm in the SW cor. NE Section 8, Lunatic Asylum Lands, was given up as dry at 2,130 feet 10 years ago, after shooting the lime pay from 1,990-2,026 feet. Several small producers were completed in the area. The flow just made, coupled with the possibilities of good results from acid treatment, will no doubt cause the treatment of the other old wells, and the drilling of more.

There were 13 tests completed in the district during the week, three abandoned as dry. Gulf Production Co. gave up its No. 1 Wright, in Section 20, Block 40, P.S.L. Survey, at a total depth of 2,757 feet, approximately 10½ miles east and a little south of Kermit on the east side of Winkler County.

New Locations

There were 11 locations staked in the district this week, three of which were wildcats. Three or four more wildcat locations are expected during the week. Empire Gas & Fuel Co. has staked location for a semiwildcat in the SE cor. Section 10, Block 45, Township 1n, T.&P. Survey, 1 mile southeast of the Davidson-Cummins discovery in the same section. Landreth Production Co. has made tentative location, to be drilled when deals are closed, in Section 18, Township 1n, Block 44, about 3 miles northwest of the Landreth-Scharbauer test which is standing shut in, but considered a small producer. Both new locations fall between the Davidson and Landreth discoveries.

Mason Oil Co. has announced location for No. 1 Kyle, in Section 22, Block 55, Township 1, T.&P. Survey, in the northwest part of Loving County, near the New Mexico line.

Wahlenmaier and others are to drill two tests in Andrews County. The first, to go to 4,700 feet, will be 1,320 feet from the north and east of Section 10, Block A-32, 12 miles north of the Deep Rock or Ogden Pool and 7 miles east of Stogner and others' test now drilling. The other test will be drilled in the NW of Section 8, Block A-33, 3½ miles east of the first test. Humble Oil & Refining Co. gave acreage for the second test and purchased a spread under the first. Texas Co. contributed acreage to the first test, and other companies have taken spreads around both.

R. H. Gill of San Angelo proposed to drill in Section 26, Block A-36, Andrews County, 3 miles northeast of the Deep Rock Pool.

A test is to be drilled in the common corners of Section 37 and 48, Block 35, Township 5n, and Sections 42 and 43, Block 34, Township 5n, T.&P. Survey, Dawson County. Another is scheduled near the east side of League 270, Moore County School Lands, same county.

Fuhrman Petroleum Co. is blocking 12,000 acres in League 247 and 248, Hartley County School Lands, in Martin County, supposedly for a wildcat.

A deep test is believed in the making for acreage on the Tom Green-Sterling County lines. Marathon Oil Co. is holding a large block in this area, in Block 5, H.&T.C. Survey, Tom Green County, and falling over into Sterling County, and Shell Petroleum Corp. owns a block in the same area.

New Ordovician Test

Humble Oil & Refining Co. was reported to have staked location for an Ordovician test on its Fort Lancaster block east of Sheffield in Crockett County. This company has been acquiring acreage in the area for the past year, Gulf Production Co. and others also taking acreage surrounding the test, which was first reported to be a unit proposition. Humble is now drilling an Ordovician test to the east in Crockett County, about 3 miles southwest of Ozona.

Another wildcat is slated for Reeves County to be drilled by K. Slack and L. M. White of Pecos City. It is to go to 4,000 feet, and is to be in Section 20, Block 56, Public School Lands. The operators are assembling acreage around the tentative location in the northwestern part of the county.

Siosi Oil Corp. has staked location in the NE cor. of Section 36, Block 26, P.S.L. Survey, approximately 2½ miles northwest of a test that appears good for making an oil producer in the recently opened sandy lime trend east of the Hendricks Field in Winkler County. Another test drilled about 2 miles south and west appears a dry hole unless plugging back and shooting makes a producer of it. This test is Maxwell and others' No. 1 Oscar Clapp in Section 27, Block 26. It is fishing at 3,487 feet, and flowing sulphur water.

George Meredith of Weatherford and George Donnelly of Eastland Oil Co. of Fort Worth have staked location on the Pittle lands, in Section 37, Block 19, T.&P. Survey, 2 miles south of the Noodle Creek Pool and about 1 mile northeast of Trent in Taylor County.

Cardinal Oil Co. has made a diagonal southeast offset location to Gulf Production Co.'s discovery on the White and Baker ranch, which recently opened a new shallow pool about 9 miles west of the Yates Field in Pecos County. The new location is 2,310 feet from the south and 330 feet from the west line of Section 51, Block Z, T.C. Railway Survey. It will fulfill a drilling obligation on the 5,516-acre block adjoining Gulf's block on the south. Gulf is drilling another test approximately 1¼ miles east of the discovery. It is below 600 feet.

WICHITA FALLS DISTRICT

There were about 60 locations staked in the Ranger and Wichita Falls districts during the week, 36 in the Wichita Falls area. The same number of tests was completed in that district, 12 dry.

The Andress Pool, north of Menster, in Cooke County, registered its largest well this week when Petroleum Producers' No. 5 Andress Brothers, in the Clark Survey, Abstract 194, made 85 bbls. per hour when drilled 9 feet in the sand topped at 1,261 feet. It is a south offset to the discovery.

Panhandle Refining Co., which has a plant in Wichita Falls, with a daily throughput of 1,500 bbls., decreased its postings for crude purchased in the district, effective February 1. For oil 29 degrees gravity and below it is to pay 65 cents, with a 2-cent differential to 40 degrees and above. This is 14 cents per barrel under other postings in the district.

L. A. Long and others are to drill a 4,000-foot test on a 600-acre block centering in the northwest quarter of W. H. Freeman Survey, in the Herron City Pool, Young County, developed in 1922 and 1924, and producing from the Strawn sand.

E. L. Story and others, of Vernon, have taken over the Stanolind Oil & Gas Co.'s Waggoner "A" and "B" leases in the north half of Section 4, Block 5, H.&T.C. Survey, Wilbarger County. The lease includes 240 acres and 3 wells making 28 bbls. daily. There are other prospective locations in the lease.

Sinclair Prairie Oil Co. has transferred its half interest in leases and wells in the Baum Pool, 4 miles north of Cross Plains in Callahan County, in the Ranger district, to the Iron Mountain Oil Co., which gave its half interest in leases held with Sinclair Prairie Oil Co. in the Creek County, Oklahoma, Field.

Pipe line runs from the Wichita Falls district averaged 63,235 bbls. per day during the week. This is an increase of 235 bbls. per day.

PANHANDLE DISTRICT

Of the 12 tests completed in the Panhandle district 2 were wildcats in Hutchinson County, 1 a small producer and opener of another pool or an extension to production. Amtex Oil Co.'s No. 1 Stevenson, in Section 7, Block M-24, T.C. Railway Survey, about 3 miles southwest of Humble Oil & Refining Co.'s small discovery on the Logan ranch in the Pedigo Survey, has been abandoned at a total depth of 3,380 feet after a showing of gas at 3,155 feet and 3,180 feet and a good showing of oil at 3,216 feet. It was shot with 40 quarts from 3,279-95 feet, 10 quarts from 3,239-70 feet and

(Continued on Page 44)

Wildcat Operations in West Texas

Week Ended February 8

ANDREWS COUNTY

Fuhrman Pet. Corp.'s No. 3-B Boner, 440 ft. from N and 1,320 ft. from E, Sec. 25, Blk. A-43.
Drlg. 3,100 ft.

Humble Oil & Ref. Co.'s No. 2 Means, 660 ft. from N and 1,980 ft. from W, Sec. 11, Blk. A-35.
T.D. 4,558 ft.; acidized, swabbed 200 bbls. one day and 240 bbls. next, 2 per cent water.

Humble Oil & Ref. Co.'s No. 3 Means, 1,980 ft. from S and 3,300 ft. from W, Sec. 4, Blk. C-45.
Drlg. 3,820 ft.

Humble Oil & Ref. Co.'s No. 3 Means, 660 ft. from N and 1,997 ft. from E, Sec. 9, Blk. A135.
Rigged up.

Stogner et al's No. 1 Richardson, 1,980 ft. N and 660 ft. E, Sec. 4, Blk. A-37, P.S.L.
Drlg. 975 ft.

York & Harper's No. 1 Hereford Stock Farms, C Labour 12, League 315, Parmer Co. School Lands.
T.D. 1,755 ft.; underreaming.

BREWSTER COUNTY

F. C. Dodson's No. 1 Texas American Syndicate, 660 ft. from N and E, Sec. 64, Blk. 10, G.H.&S.A. Sur.
Location.

Joiner et al's No. 1 McIntyre, 353 ft. from S, 2,390 ft. from E of Sec. 21, Blk. 352, W. M. Mitchell Sur.
Trying to drill by bit 2,100 ft.

King & Franklin's No. 1 Gage Est., C Sec. 138, Blk. 22, G.H.&S.A. Sur.
T.D. 602 ft.; underreaming.

S. G. Smith's No. 1 Decie, 2,490 ft. from S and E, Sec. 7, Blk. 1.
Drlg. 555 ft.

COCHRAN COUNTY

Kelsey's No. 1 Slaughter, C Labour 36, League 150, R.C.S. Lands.
Derrick.

West Texas Development Co.'s No. 1 Slaughter, near C of Labour 53, League 149, Randall Co. School Lands.
Derrick.

CRANE COUNTY

Gulf Prod. Co.'s No. 1 Waddell, C NW NW Sec. 4, Blk. B-27, P.S.L. Sur.
Drlg. 2,330 ft.

Gulf Prod. Co.'s No. 9 Waddell, C of NE. Sec. 11, Blk. B-23, P.S.L. Sur.
Drlg. 1,760 ft.

Wahlenmaier Pet. Corp.'s No. 1 Kloh, 330 ft. from S and 1,608 ft. from W, Sec. 33, Blk. 43, Twp. 4s, T.&P. Sur.
Drlg. 330 ft.

CROCKETT COUNTY

Eppenauer Drlg. Co.'s No. 1-C Powell, 1,600 ft. from S and 250 ft. from E, Sec. 53, Blk. BB, G.C.&S.F. Sur.
Drlg. 140 ft.

Leslie-Hiller et al's No. 1 Todd, 1,200 ft. N and 330 ft. E, Sec. 36, Blk. WX, G.C.& S.F. Sur.
S.D. 530 ft.

Humble Oil & Ref. Co.'s No. 1 Couch, C NW Sec. 3, Blk. QR, G.C.&S.F. Sur.
Drlg. 1,525 ft.

CULBERSON COUNTY

Anderson-Pritchard Oil Corp., Magnolia Pet. Co. et al's No. 1 Borders, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
Drlg. 710 ft.

Miller Bros.' No. 1 fee, 1,900 ft. from N and 660 ft. from E line of Sec. 21, Blk. 97, P.S.L. Sur.
S.D. 2,145 ft.; show oil 2,107 ft.

Wood et al's No. 1 Hall, 250 ft. from S and 35 ft. from E, Sec. 11, Blk. 64½, 16 miles N of Van Horn, P.S.L. Sur.
S.D. 246 ft.

DAWSON COUNTY

Adams & Turner's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.
S.D. 3,500 ft.

(Continued on Page 46)

East Texas District Reports 81 New Locations and 90 Producers Completed During Busy Week

By L. E. BREDBERG

DALLAS, Tex., Feb. 11.—There were 81 locations staked in the East Texas district this week while 90 producers were completed. Two were completed as pumpers, and another brought in on the swab. A test on the northwest edge of the field was dry at 3,618 feet when it made salt water. It was on the E. L. Starr tract in Gregg County.

Monte Oil Co. completed another shallow producer on its M. Fenn tract, northeast of Gladewater in Gregg County. It topped the sand at 665 feet and was completed at total depth of 704 feet. These shallow wells are said to be producing Woodbine sand oil coming up to the Carrizo sand, where wells are completed. Split casing in one well, or some other trouble is probably the cause for this upward seepage. The wells are not under proration as a result of a federal court injunction two years ago. Humble Oil & Refining Co. and Rancho Oil Co. also have shallow producers in this area. The new well made 41 bbls. in 40 minutes through 2½-inch tubing choke, or as good as many producing from the Woodbine sand.

Pressure Declines

Pressure tests, completed around the first of the month, showed the Gladewater area, on the west side of Gregg County, to be in bad shape on account of heavy withdrawals. The average weighted pressure of the field was reported as showing a 4-pound drop for January, bringing the bottom hole average down to 1,227 pounds, according to the company engineers who tested around 300 key wells throughout the field. This drop was caused by operators increasing production after removal of the Federal Tender Board.

Operators continue to dispose of leases, in many cases other independents taking them over, although major companies have long been purchasers of producing properties and are still on the lookout for them. Elm Oil Co. of Tulsa, headed by Clyde Alexander, formerly with Phillips Petroleum Co., has taken over the J. W. Hoosier lease on the Eaton, Jones and McElroy farm in the Cordova Survey, Rusk County. There are 17 wells with a daily allowable of 440 bbls. The leases contain 77 acres.

Major purchasers are active in soliciting connections. There is a great demand for legal oil, as well as illegal oil in the field.

Gregg Tex Gasoline Corp. is preparing to install four additional units in its casinghead gasoline plant in the D. Sanchez Survey in Gregg County, having purchased the compressors during the past week. The company is also to extend its gas gathering system to more wells.

The Railroad Commission continues busy turning down permits to drill more wells on small tracts, and the operators are just as busy in obtaining injunctions to drill them.

Wildcat Tests

Completion records were turned in on three wildcat tests in the East Central Texas district during the week, one on Gulf Production Co.'s No. 1 Davey and Royall gas discovery in the Rogers Survey, 7 miles southeast of Palestine in Anderson County.

Rowen and Nichols abandoned their No. 1 Gilbreath in the C. M. Brewer Survey, 1 mile northwest of Reklaw in Cherokee County, at a total depth of 4,217 feet. Syam Oil Co. abandoned a test in Navarro County, total depth 4,085 feet. This test was on the Love farm in the J. L. Strother Survey. McGlothlin and others staked location in this county this week for a Woodbine sand test, on the Barnett farm in the Elisha Powers Survey, near Perry in the southeastern part of the county.

Hoover and others have staked location east of Mexia on the McFall farm in the S. Garrison Survey, east of Mexia in Freestone County, for a Woodbine sand test, and Worsham and others have location staked on the Wathen lands in the B. Towles Survey, northwest of Cayuga near the Anderson and Henderson County lines, but in Anderson County. E. T. Bruce has staked location on the A. F. Decker tract in the William Russell Survey, McLennan County, the second location in this county in two weeks.

There is no wildcat of special importance now drilling, the Davey and Royall gasser being the last important one to be completed. Other Woodbine sand tests are proposed, more locations being expected within a week or two.

COMPLETIONS

Gregg County, Texas

Almeda Petroleum Co.'s No. B-3 R. P. Doby, top sand 3,691 feet, total depth 3,715 feet, initial production 100 bbls. an hour; Atlantic Oil Producing Co.'s No. 6 S. S. Barton, top sand 3,649 feet, total depth 3,670 feet, initial production 100 bbls. an hour. Barnsdall Oil Co.'s No. 8 R. E. Ferguson, top sand 3,658 feet, total depth 3,668 feet, initial production 60 bbls. an hour. M. E. Gaskill's No. 5 Sam Kay, top sand 3,635 feet, total depth 3,641 feet, initial production 90 bbls. an hour, 1-inch choke, 2½-inch tubing.

Gulf Production Co.'s No. 14 Bozeman, top sand 3,564 feet, total depth 3,610 feet, initial production 60 bbls. an hour; No. 74 Judge, top sand 3,505 feet, total depth 3,530 feet, initial production 68 bbls. an hour. Humble Oil & Refining Co.'s No. 14 Carter, top sand 3,618 feet, total depth 3,667 feet, initial production 109 bbls. an hour. Monte Oil Co.'s No. 1-X-B M. Fenn, top sand 665 feet, total depth 704 feet, initial production 41 bbls. in 40 minutes, 2½-inch tubing, shallow well, show of oil at 360 feet. Roeser & Pendleton's No. A-10 W. R. Nichols, top sand 3,664-76 feet, total depth 3,682 feet, initial production 16 bbls. in 15 minutes.

Shell Petroleum Co.'s No. 2 E. Cabinall, top sand 3,583 feet, top lime 3,616 feet, total depth 3,619 feet, initial production 24 bbls. in three hours; No. 20 G. W. Richey, top sand 3,561-3,606 feet, total depth 3,615 feet, shale, initial production 22 bbls. in 15 minutes, 2-inch tubing. Sinclair Prairie's No. 35 M. Moncrief, top sand 3,545 feet, total depth 3,582 feet, initial production 35 bbls. in 15 minutes. Stanolind Oil & Gas Co.'s No. C-6 M. B. Harley, top sand 3,600 feet, total depth 3,664 feet, initial production 36 bbls. in 30 minutes; No. 9 Stuckey-Thrasher, top sand 3,542 feet, total depth 3,606 feet, initial production 31 bbls. in 30 minutes; No. A-4 E. L. Walker, top sand 3,552 feet, total depth 3,578 feet, initial production 25 bbls. in 21 minutes.

Stanolind and others' No. A-3 A. Christian, top sand 3,588 feet, total depth 3,664 feet, initial production 36 bbls. in 30 minutes. Sun Oil Co.'s No. 12 J. L. Gray, top sand 3,586 feet, total depth 3,590 feet, initial production 50 bbls. an hour; No. 25 J. M. Haynes, top sand 3,565 feet, total depth 3,593 feet, initial production 45 bbls. in 40 minutes. M. E. Trapp and others' No. 2 K. Moseley, top sand 3,457 feet, total depth 3,512 feet, initial production 100 bbls. an hour. G. W. Vaughn's No. 5 G. Jones, top sand 3,554 feet, total depth 3,590 feet, initial production 35 bbls. in 20 minutes. G. W. Vaughn and Magnolia Petroleum Co.'s No. 7 R. R. Collins, top sand 3,686 feet, total depth 3,700 feet, initial production 26 bbls. in 15 minutes.

Snowden's (formerly J. A. Woods and others') No. 1 E. L. Starr, top sand 3,662 feet, total depth 3,682 feet, plugged back to 3,618 feet, salt water and abandoned. Yount Lee's No. A-7 Fenton, top sand 3,555 feet, total depth 3,575 feet, initial production 50 bbls. an hour, eleven-sixteenths inch choke. J. G. Beard's No. 4 E. Muckleroy, top sand 3,594 feet, total depth 3,603 feet, initial production 30 bbls. in 15 minutes. Empire Gas & Fuel Co.'s No. 9 A. O. Lockhart, top sand 3,588 feet, total depth 3,627 feet, initial production 28 bbls. in 15 minutes. Humble Oil & Refining Co.'s No. B-65 S. S. Laird, top sand 3,520 feet, total depth 3,603 feet, shale, initial production 19 bbls. in 17 minutes, 2-inch tubing.

Kilgore Refining Co.'s No. 7 I.&G.N. R.R., top sand 3,530 feet, total depth 3,605 feet, shale, initial production 20 bbls. in 30 minutes, 1-inch choke. Magnolia Petroleum Co.'s No. 10 M. T. Cole, top sand 3,571 feet, total depth 3,572 feet, initial production 40 bbls. in 15 minutes; No. 27 J. Radford, top sand 3,644 feet, total depth 3,646 feet, initial production 96 bbls. an hour, 2-inch choke on 2½-inch tubing. Producers Investment Co.'s No. 5 J. A. Butts, top sand 3,554 feet, total depth 3,595 feet, initial production 40 bbls. an hour. Shell Petroleum Co.'s No. 8 J. S. King, top sand 3,627 feet, total depth 3,642 feet, initial production 23 bbls. in 15 minutes.

H. R. Smith and others' No. 6 Gray, top sand 3,676 feet, total depth 3,683 feet, initial production 35 bbls. in 25 minutes. J. B. Sowell's No. A-2 W. B. Walker, top sand 3,680 feet, total depth 3,683 feet, initial production 75 bbls. hour. Sun Oil Co.'s No. 17 Hilburn-Lloyd, top sand 3,640 feet, total depth 3,644 feet, initial production 66 bbls. an hour. Tide Water Oil Co.'s No. 19 E. R. Bivens, top sand 3,608 feet, total depth 3,615 feet, initial production 10 bbls. in 10 minutes, 1-inch choke. Y Oil Co.'s No. 3 G. Davis, top sand 3,630 feet, total depth 3,631 feet, initial production 40 bbls. an hour

Rusk County

Everetts Drilling Co.'s No. B-3 H. F. Crews, top sand 3,873 feet, total depth 3,874 feet, initial production 128 bbls. an hour, 2½-inch tubing. Gulf Production Co.'s No. 16 W. G. Sexton, top sand 3,622-35 feet, total depth 3,713 feet, shale, initial production 25 bbls. an hour, three-quarters inch choke. Humble Oil & Refining Co.'s No. B-64 S. S. Laird, top sand 3,515 feet, total depth 3,588 feet, shale, initial production 40 bbls. an hour, 2-inch choke. Meco Production Co.'s No. 5 F. Cooper, top sand 3,721 feet, total depth 3,722 feet, initial production 20 bbls. in 30 minutes.

Navarro Oil Co.'s No. 21 Brightwell, top sand 3,595 feet, total depth 3,637 feet, shale, initial production 25 bbls. in 30 minutes; No. 22 Brightwell, top sand 3,610 feet, total depth 3,660 feet, initial production 60 bbls. an hour. Bateman Oil & Gas Co.'s No. 3 Worrell, top sand 3,522-28 feet, top lime 3,570 feet, total depth 3,579 feet, lime, initial production swabbed 45 bbls. in three hours, 2-inch tubing. W. J. Collins' No. 4 Redwine, top sand 3,525 feet, total depth 3,580 feet, initial production pumping 20 bbls. in three hours.

Gulf Production Co.'s No. 12 Maxwell, top sand 3,706 feet, total depth 3,712 feet, initial production 53 bbls. an hour, three-quarters inch choke; No. A-6 A. H. Rayford, top sand 3,718 feet, total depth 3,721 feet, initial production 43 bbls. an hour; No. 9 E. E. Thrash, top sand 3,700 feet, total depth 3,711 feet, initial production 27 bbls. in 30 minutes. Humble

East Central Texas Wildcats

Week Ended February 9

ANDERSON COUNTY

Gulf Prod. Co.'s No. 1 M. J. Ross, 1,770 ft. from SW and 1,370 ft. from NW lines of Robt. Erwin Sur.
Spudded.

J. W. Luttes' No. 1 C. McKee, 2,640 ft. from N line of lease and survey and 330 ft. from W line of McKey 800-ac. tract.
Derrick.

Tide Water Oil Co. et al's No. 21-A Wells, 4,079 ft. N and 2,333 ft. W of lease, S. Edmondson Sur. (Trinity test).
Drlg. 4,150 ft.

Worsham's No. 1 Wathen, 1,400 ft. S and 467 ft. from E line of B. Towles Sur., NW of Cayuga.
Location.

BOWIE COUNTY

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft. E and 350 ft. N lines, J. Milan Sur., 4 miles S of Red River.
Rigged up.

CHEROKEE COUNTY

Jacksonville O. & G. Co.'s No. 1 H. D. Henderson, 660 ft. from N and W lines of 40-ac. tract out of Tankersley 104-ac. tract, 5 miles NE of Jacksonville on W side of railroad, J. Pineda Sur.
T.D. 752 ft.

E. M. Thomason et al's No. 1 Addis Estate, 250 ft. S of survey and 150 ft. E of railroad, J. T. Jones Sur., 6 miles NW Alto.
Drlg. 2,547 ft.

Wilson Stubbs Oil Co.'s No. 1 Rowborts, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur.
S.D. 1,563 ft.

ELLIS COUNTY

Beckner-Finley et al's No. 1 Coker, 2,900 varas along S line of grant from river and 1,700 varas N at R/A, R. De La Pena Sur.
S.D. 527 ft.

FREESTONE COUNTY

Amerada Pet. Corp.'s No. 1 Burk, 851 ft. S and 191 ft. W of river, E. G. Rector Sur. Material.

Burris' No. 1 R. J. Johnson, NE cor. of a 95.5-ac. tract, W. M. C. Jones Sur.
S.D. 3,176 ft.; Pecan Gap chalk 2,648-2,804 ft.

Hoover et al's No. 1 McFall, 150 ft. S and W lines, S. Garrison Sur., E of Mexia.
Location.

GREGG COUNTY

O. T. Clark's No. 1 Williams, 2,100 ft. from S and 3,400 ft. from W of D. Hill Sur., 3 miles NE of Longview.
S.D. 3,420 ft.

HENDERSON COUNTY

Campbell and Chamberlain's No. 1 R. Ansley, 1,724 ft. W and 300 ft. S of SE cor. of M. Matthews Sur., N. H. T. Thompson Sur.
Drlg. 1,105 ft.

Crosby and Pulp's No. 1 M. T. Dobbs, NW cor. of east Dobbs 100-ac. tract, 4 miles E of Malahoff and S of Railroad, George Aldrick Sur.
S.D. 4,048 ft.

Pioneer Exploration Co.'s No. 1 Gentry, 300 ft. out of SE cor. of West Gentry tract in C. M. Walters Sur., 3 miles W of Athens.
Drlg. 1,534 ft.

HILL COUNTY

Humble O. & R. Co.'s No. 1 Holderman, 1,667 ft. from E and 750 ft. from N line of tract in C. Sullivant Sur., 1 mile W of Mt. Calm.
Location.

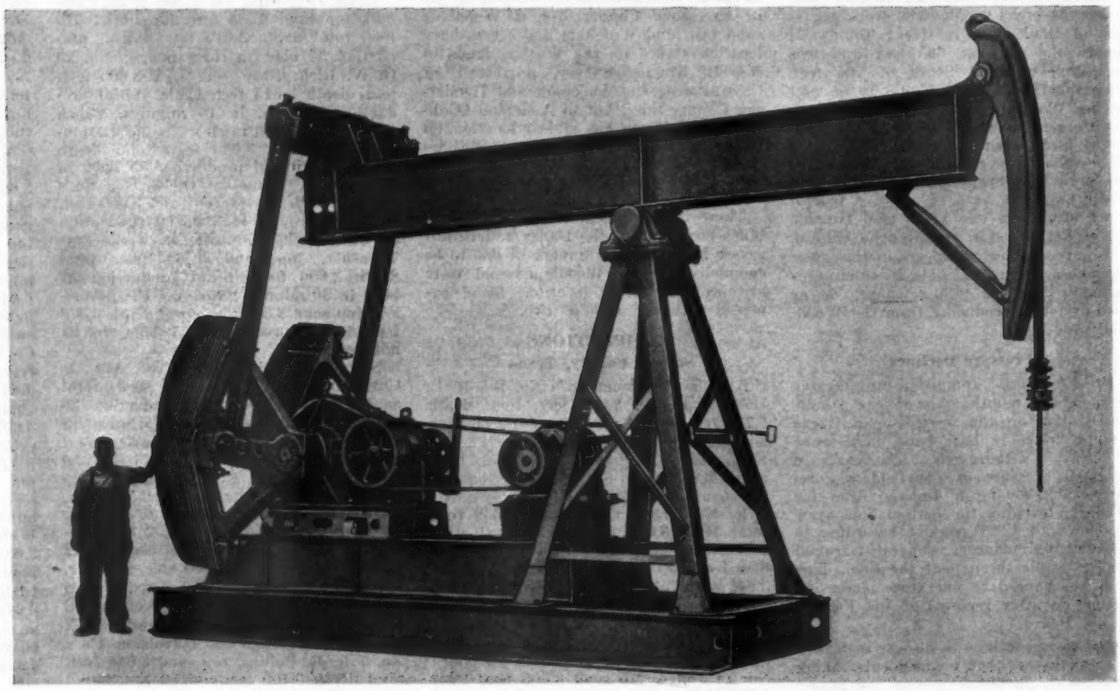
HOPKINS COUNTY

D. A. Hale et al's No. 1 L. M. Hall, 200 ft. from N and E lines of 70-ac. tract, 1 mile SE of Miller Gros. A. Caro Sur.
S.D. 1,485 ft.

(Continued on Page 46)

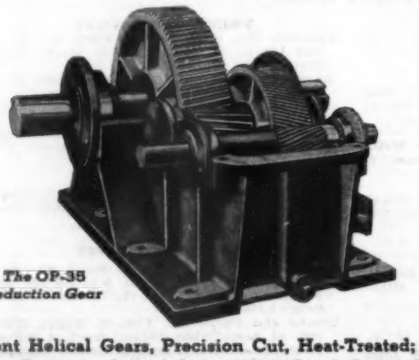
for SUPER SERVICE

Complete Line of Sturdy, Dependable



Illustrating "OILWELL" *TC-35* TWIN CRANK UNIT POWER *with Motor Drive*

"OILWELL" REDUCTION GEARS
WESTINGHOUSE-NUTTALL
FOR ALL PUMPING CONDITIONS



The OP-35
Reduction Gear

• Silent Helical Gears, Precision Cut, Heat-Treated; Anti-Friction Bearings; Oilbath Lubrication; Quick-Acting Brake; Extra Heavy Oiltight, Weatherproof Case. *For Single and Twin-Crank Pumping Units:* ODH-110, ODH-18, TC-20, OP-27, OP-35. *For Rig Front and Back Crank Installations:* OP-20, OP-27, OP-35, OP-45.

TWIN-CRANK UNITS

TC-20
14,000 lbs. Polished Rod Load Capacity.
Stroke Range 22½" to 52½".

TC-27L
20,000 lbs. Polished Rod Load Capacity.
Stroke Range 24" to 54".

TC-27H
25,000 lbs. Polished Rod Load Capacity.
Stroke Range 24" to 74".

TC-35
25,000 lbs. Polished Rod Load Capacity.
Stroke Range 24" to 74".
(Has same structural rig as TC-27H Unit with larger H. P. capacity Reduction Gear.)

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"OILWELL" PUMPING UNITS
Units for Every Pumping Service . . .

"OILWELL" DESIGN FEATURES:

- Rugged, Arc-Welded Rig.
- Compact and Portable.
- Minimum Installation Cost.
- Arc or Link Type Hangers.
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- Self-Locking Service Brake.
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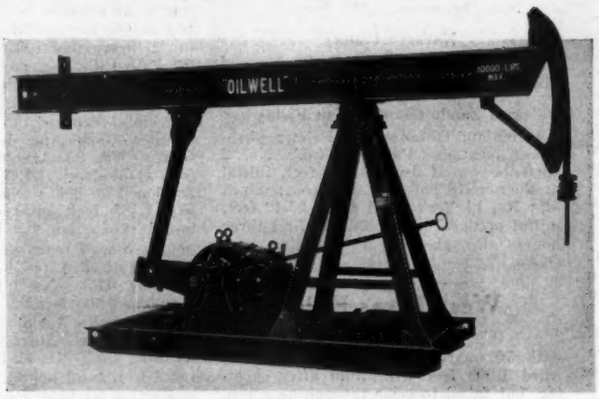

Illustrating **"OILWELL"** *No. 10* **SINGLE CRANK UNIT POWER** *—a sturdy and economical unit for Light Wells*

SINGLE CRANK UNITS

No. 5
5,000 lbs. Polished Rod Load Capacity.
Stroke Range 12″ to 24″.

No. 10
10,000 lbs. Polished Rod Load Capacity.
Stroke Range 22½″ to 37½″.

ODH-18
14,000 lbs. Polished Rod Load Capacity.
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"OILWELL"

Oil & Refining Co.'s No. C-11 Ida Holt, top sand 3,755-85 feet, total depth 3,812 feet, initial production 67 bbls. an hour; No. 3 A. Scott, top sand 3,730-51 feet, total depth 3,784 feet, initial production 83 bbls. an hour.

Hunt Production Co.'s No. C-18 Fair, top sand 3,614 feet, total depth 3,624 feet, initial production 32 bbls. in 14 minutes. Imperator Oil Co.'s No. 2 J. L. Maswell, top sand 3,746 feet, total depth 3,766 feet, initial production 60 bbls. an hour. Lone Pine Co.'s (formerly Wainwright-West's) No. B-4 L. J. Pinkston, top sand 3,645 feet, total depth 3,660 feet, initial production 20 bbls. in 20 minutes, 2-inch tubing. McDonald-Campbell's No. 4 W. H. Wheelis, top sand 3,767 feet, total depth 3,803 feet, initial production 32 bbls. in 15 minutes.

Marathon Oil Co.'s No. 7 C. L. Graham, top sand 3,683 feet, total depth 3,685 feet, swabbing 20 bbls. an hour; No. 14 J. F. Mason, top sand 3,636 feet, total depth 3,679 feet, initial production 64 bbls. an hour; No. 22 E. E. Moores, top sand 3,614 feet, total depth 3,668 feet, initial production 15 bbls. in 15 minutes. P. N. Nathan's (Matthew) No. 6 R. Redwine, top sand 3,545 feet, total depth 3,620 feet, initial production pumping 20 bbls. an hour. Ortiz Oil Co.'s No. 3 C. Young, top sand 3,658 feet, total depth 3,710 feet, shale, initial production 50 bbls. an hour. Tom C. Patton's No. 2 Rhodes, top sand 3,709-40 feet, total depth 3,797 feet, shale, initial production 120 bbls. in three hours, 2-inch choke. Sinclair Prairie's No. 6 W. T. Grissom, top sand 3,655 feet, total depth 3,667 feet, initial production 24 bbls. in 15 minutes.

E. R. Smith-McDonald's No. 2 A. J. Deason, top sand 3,603 feet, total depth 3,680 feet, initial production 35 bbls. in two hours, 2-inch tubing. Sun Oil Co.'s No. 5 R. A. Barksdale, top sand 3,798 feet, total depth 3,808 feet, initial production 48 bbls. an hour. Texas Co.'s No. 8 J. D. Stone, top sand 3,624 feet, total depth 3,678 feet, initial production 60 bbls. hour. Tide Water's No. 20 L. J. Pinkston, top sand 3,741-85 feet, total depth 3,790 feet, shale, initial production 20 bbls. in 15 minutes; No. 5 Whittington, top sand 3,612-23 feet, total depth 3,642 feet, shale, initial production swabbing 20 bbls. an hour. H. W. Whisenunt, receiver's No. 11 G. W. Eaton, top sand 3,747 feet, total depth 3,750 feet, initial production 50 bbls. an hour, 2-inch tubing.

Smith County

Cron & Gracy's No. 5 Jarvis (Smith), top sand 3,687 feet, total depth 3,688 feet, initial production 60 bbls. an hour. Johnson-Owens' No. 7 Jackson, top sand 3,747 feet, total depth 3,750 feet, initial production 125 bbls. an hour. Stanley Lewis' No. 5 S. S. Cook, top sand 3,762 feet, total depth 3,765 feet, initial production 20 bbls. in 20 minutes. Magnolia Petroleum Co.'s No. 16 Roy Loosier, top sand 3,725 feet, total depth 3,732 feet, initial production 15 bbls. in 25 minutes. T. C. Reeves, receiver's No. 7 W. D. Wilford, top sand 3,719 feet, total depth 3,731 feet, initial production 75 bbls. in 90 minutes, 2-inch tubing.

Sells Petroleum Co.'s No. 3 St. Clair, top sand 3,765 feet, total depth 3,766 feet, initial production 50 bbls. an hour. Sun Oil Co.'s No. 2 Burns, top sand 3,764 feet, total depth 3,765 feet, initial production 30 bbls. an hour; No. B-9 H. A Pace, top sand 3,725 feet, total depth 3,727 feet, initial production 45 bbls. an hour. Texas-Gulf's No. 4 Hodnott & Melton, top sand 3,664 feet, total depth 3,667 feet, initial production 20 bbls. in 20 minutes. F. Bezoni, receiver's No. 1 Church Lot, top sand 3,699 feet, total depth 3,702 feet, initial production 40 bbls. an hour. Texas-Canadian's No. 3 J. R. Irion, top sand 3,736 feet, total depth 3,737 feet, initial production 50 bbls. an hour.

Upshur County

Arkansas Drilling Co.'s No. 1 M. Buie, top sand 3,627 feet, total depth 3,631 feet, initial production 75 bbls. an hour. Hickman & Beard's No. 10 Graves, top sand 3,582 feet, total depth 3,589 feet, initial production 75 bbls. an hour. Pace-Mitcham's No. 3 Adkins, top sand 3,770 feet, total depth 3,793 feet, initial production 75 bbls. hour. Simms & Stanolind's No. B-31 J. J. Flewellen, top sand 3,704 feet, total depth 3,713 feet, initial production 90 bbls. an hour, 2-inch tubing.

Anderson County (Cayuga Field)

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 15-A Wills, total depth 4,092 feet, initial production 40 bbls. in 12 hours through one one-eighth inch choke.

Anderson County Wildcats

Gulf Production Co.'s No. 1 Davey & Royall, total depth 5,970 feet, plugged back to 5,059 feet. completed as a gas well with no gauge taken, tubing pressure 1,850 pounds and casing pressure 1,950 pounds.

Cherokee County

Rowen and Nichols' No. 1 Gilbreath, dry and abandoned 4,217 feet.

Navarro County

Syam Oil Co.'s No. 1 Love, dry and abandoned 4,085 feet.

Van Zandt County (Van Field)

Peden and Olson's No. 1 Palmer, abandoned location. Pure Oil Co.'s No. 2 Listenbee, total depth 1,236 feet, initial production 18 bbls. in 24 hours, pumped off; No. 12 York, total depth 2,942 feet, initial production 84 bbls. the first three hours through eleven-sixteenths inch choke.

West Texas Fields

(Continued from Page 40)

with 70 quarts from 3,211-39 feet. It filled 1,000 feet with fluid after shooting, but failed to come through as a producer. Total depth is 3,380 feet. It is between the Logan discovery and the Stinnett Pool, and in Hutchinson County.

Humble Oil & Refining Co.'s No. 1 Logan was completed for 44 bbls. of oil and 12 bbls. of water per day, pumping. Total depth was 3,294 feet, but it was plugged back to 3,287 feet in an effort to shut off water. A 390-quart shot was given it from 3,195-3,270 feet. This well evidently opens another area but it is doubtful if production will be connected with the Stinnett Pool, 7 miles to the south.

There were 21 locations staked in the district during the week, 1 a wildcat in Gray County. Eben Warner, of Amarillo, is to drill this on the Taylor lands, in Section 8, Block H, A. W. Wallace Survey, about 6 miles east of the Texas Co.'s No. 1-C Taylor discovery, south of the Bowers Pool.

COMPLETIONS IN WEST TEXAS

Crane County

Strauss & Phelps' No. 1 Phillips and others, dry and abandoned 1,989 feet.

Ector County

Harrison's No. 2-A Addis, top pay 3,924 feet, total depth 4,069 feet, shot with 200 quarts from 3,850-3,960 feet, initial production 434 bbls. per day. Stanolind Oil & Gas Co.'s No. 14 Cowden, top pay 4,250 feet, total depth 4,350 feet, shot with 340 quarts from 4,156-4,333 feet, initial production 857 bbls.

Howard County

Humble Oil & Refining Co.'s No. 9 Settles top pay 2,266 feet, total depth 2,350 feet, initial production 33 bbls. per hour.

Jones County

Byram and others' No. 1 McWright, dry and abandoned 2,012 feet.

Pecos County

Marathon Oil Co.'s No. 36-B Yates, top pay 1,220 feet, total depth 1,425 feet, initial production 3,005 bbls. per hour. Courvette Oil Co.'s No. 7 Tippett, top pay 583 feet, total depth 650 feet, initial production 40 bbls. per day, pumping.

Runnels County

Hall's No. 1 Golden-Brevard, top pay 2,516 feet, total depth 2,529 feet, initial production 50 bbls. per day, pumping. Petroleum Interests' No. 4-B Brevard, top pay 2,504 feet, total depth 2,515 feet, initial production 50 bbls. per day, pumping.

Upton County

Gulf Production Co.'s No. 13 Crier-McElroy, top pay 2,635 feet, total depth 2,823 feet, initial production 2,742 bbls. Texas Pacific Coal & Oil Co.'s No. 1-E Lane, top pay 2,280 feet, total depth 2,306 feet, initial production 379 bbls. per day, pumping.

WICHITA FALLS COMPLETIONS

Archer County

Hawkins and others' No. 1 Richards, top pay 1,435 feet, total depth 1,437 feet, initial production 53 bbls. Bridwell Oil Co.'s No. 6-A Falls County, top pay 1,154 feet, total depth 1,168 feet, initial production 30 bbls. Burns' No. 1-A Wilson, dry and abandoned 1,815 feet. Cullum & Alexander's No. 12 Falls-Gulf, top pay 1,090 feet, total depth 1,115 feet, initial production 100 bbls. Cullum's No. 21 Falls-Ellis, top pay 1,119 feet, total depth 1,132 feet, initial production 70 bbls.; No. 22 Falls-Ellis, top pay 1,134 feet, total depth 1,145 feet, initial production 20 bbls. per hour. Fain & McGaha's No. 35 Arnold, top pay 1,181 feet, total depth 1,195 feet, initial production 250 bbls.; No. 36 Arnold, top pay 1,189 feet, total depth 1,202 feet, initial production 230 bbls. Hamer and Sholl's No. 10 Longley, top pay 972 feet, total depth 975 feet, initial production 250 bbls. Holt's No. 1 Dempsey, dry and abandoned 500 feet.

Kleiner's No. 3 Andrews, dry and abandoned 977 feet. Maxson and Panhandle Refining Co.'s No. 32-B Green, top pay 1,092 feet, total depth 1,106 feet, initial production 25 bbls. Pace's No. 21 Abercrombie, top pay 1,172 feet, total depth 1,178 feet, initial production 5 bbls. Perkins & Cullum's No. 11 Aber, top pay 1,185 feet, total depth 1,195 feet, initial production 35 bbls.; No. 134 Falls County, top pay 1,115 feet, total depth 1,137 feet, initial production 200 bbls.; No. 135 Falls County, top pay 1,188 feet, total depth 1,204 feet, initial production 75 bbls. T. G. Shaw Oil Corp.'s No. 1 Scott, dry and abandoned 1,212 feet. Sinclair Prairie Oil Co.'s No. 8 Falls-Boyles, top pay 1,094 feet, total depth 1,107 feet, initial production 50 bbls. Staniforth & Ray's No. 1-B Wilson, top pay 1,598 feet, total depth 1,607 feet, initial production 300 bbls. Texas Co.'s No. 2 Wilburn, dry and abandoned 1,440 feet.

Jack County

Jones and others' No. 1 Shields, dry and abandoned 853 feet.

Montague County

Texas Co.'s No. 4 O'Neal, top pay 1,689 feet, total depth 1,691 feet, initial production 100 bbls. Continental Oil Co.'s No. 5 Lawler, top pay 1,714 feet, total depth 1,734 feet, initial production 146 bbls. first 24 hours.

Wichita County

Burns' No. 10 Allen and Kemp, top pay 452 feet, total depth 460 feet, initial production 4 bbls. Shappel Oil Co.'s No. 1 Shappel, dry and abandoned 1,974 feet. A. B. Wharton, Jr.'s No. 2-B Waggoner, top pay 1,973 feet, total depth 1,985 feet, initial production 75 bbls.

Wilbarger County

Webb and Stilley's No. 1-D Waggoner, dry and abandoned 2,050 feet.

Young County

F. H. E. Oil Co. and Anderson's No. 1 Jeffery, dry and abandoned 830 feet. Baker Oils, Inc.'s No. 4 Perkins, top pay 737 feet, total depth 741 feet, initial production 100 bbls. Fresno Oil Co.'s No. 5 Baldwin, top pay 685 feet, total depth 690 feet, initial production 10 bbls. Martin & Son's No. 1 Ward, top pay 594 feet, total depth 603 feet, initial production 5 bbls. per hour. Martin and Consolidated Oil Co.'s No. 1 Hamilton, dry and abandoned 931 feet. Stafford and others' No. 1 Sullivan, dry and abandoned 601 feet. Stilley's No. 2 Perkins, top pay 733 feet, total depth 743 feet, initial production 200 bbls. Terrell's No. 4 Kirkland, top pay 556 feet, total depth 564 feet, initial production 15 bbls. Wooten and Loffland Brothers' No. 1 Montgomery. dry and abandoned 574 feet.

COMPLETIONS IN PANHANDLE

Gray County

Humble Oil & Refining Co.'s No. 2 Haggard, top pay 3,188 feet, total depth 3,242 feet, shot with 220 quarts from 3,180-3,242 feet, acidized, initial production 100 bbls. per day, pumping. Skelly Oil Co.'s No. 4 Jackson, dry and abandoned 3,467 feet; No. 21 Schaffer, top pay 3,215 feet, total depth 3,321 feet, shot with 280 quarts from 3,195-3,313 feet, initial production 404 bbls. per day, pumping. Stanolind Oil & Gas Co.'s No. 3-B Cobb, top pay 3,245 feet, total depth 3,332 feet, shot with 320 quarts from 3,202-3,330 feet, initial production 297 bbls. per day, pumping; No. 1 Culler, top pay 3,171 feet, total depth 3,296 feet, shot with 320 quarts from 3,150-3,285 feet, initial production 400 bbls. per day, pumping. Texas Co.'s No. 24 Saunders, top pay 2,640 feet, total depth 3,152 feet, initial production 10 bbls.

Hutchinson County

Amtex Oil Co.'s No. 1 Stevenson, dry and abandoned 3,380 feet. Humble Oil & Refining Co.'s No. 1 Logan, total depth 3,294 feet, plugged back to 3,287 feet, shot with 390 quarts from 3,195-3,270 feet, initial production 44 bbls. of oil and 12 bbls. of water per day, pumping. Stanolind Oil & Gas Co.'s No. 5-A Ware, top pay 3,007 feet, total depth 3,100 feet, shot with 260 quarts from 2,995-3,100 feet, initial production 232 bbls. per day, pumping; No. 2 Watkins, top pay 2,867 feet, total depth 2,942 feet, shot with 190 quarts from 2,865-2,940 feet, initial production 144 bbls. per day, pumping.

Moore County

Texoma Natural Gas Co.'s No. 1 Haas, total depth 3,441 feet, initial production 66,300,000 feet of gas per day.

Wheeler County

Cub Oil Co.'s No. 1 Farren, total depth 2,111 feet, initial production 33,000,000 feet of gas.

Injunction Cross Suits Started in California

LOS ANGELES, Calif., Feb. 11.—United States Attorney Hall has instituted injunction proceedings against the Mohawk Petroleum Co. and the Bellview Oil Syndicate to restrain the defendants from further violation of the oil code by production of crude oil in excess of allotted quotas. The latter company countered by filing an injunction to restrain the Government from interfering with its operations which it claims are intrastate and not subject to the national code.

Federal Judge James issued a temporary restraining order and will hear the injunction and counter injunction proceedings on February 15. Under the temporary restraining order the Bellview will be allowed to continue overproduction due to its plea that reduction of production would result in serious consequences, but must store the crude pending disposition of the suit.

Both companies have been exceeding production quotas for some time and this with other contributing factors has precipitated a serious crisis in the marketing situation. This drastic action may arrest an incipient gasoline price war which has been accumulating additional momentum daily. Mohawk is charged with violation of production quotas in the Mountain View Field of Kern County and Bellview is alleged to have exceeded its allotment in the Santa Fe Springs Field of Los Angeles Basin.

EDWARD HOWARD KILLED

MONTREAL, Quebec, Feb. 9.—Edward Howard, a member of the Imperial Oil, Ltd., staff here since his graduation at Toronto University a year ago, was fatally injured in a hunting accident in the Quebec woods.

SEALED SECURITY

Pittsburgh Special Drill Pipe offers all the advantages of shoulder welding without its disadvantages . . . a tight-fitting tapered shoulder that effectively seals each joint . . . prevents washouts . . . adds 30 per cent bearing surface . . . eliminates rocking and breakoffs in threads. Interchangeable with A.P.I. pipe. Tool joints to fit are obtainable from manufacturers licensed to make them.

PITTSBURGH STEEL COMPANY

PITTSBURGH • PENNSYLVANIA

New York Detroit Chicago St. Louis
Tulsa Los Angeles Houston

Pittsburgh Special DRILL PIPE

ROCKY MOUNTAIN RUNS

Estimated daily average production for the week ending February 9 follows:

	Bbls.
WYOMING	
Salt Creek	17,750
Big Muddy	1,720
Badger Basin	40
Black Mountain	70
Byron	950
Dallas Derby	570
Dutton Creek	80
Elk Basin	520
Ferris	10
Frannie	240
Garland	1,260
Grass Creek	950
Greybull	10
Hamilton Dome	1,060
Hudson	290
LaBarge	1,410
Lance Creek	640
Lost Soldier	2,080
Mule Creek	210
Midway	50
Notches	shut in
Oregon Basin	2,400
Osage	720
Pilot Butte	20
Rock River	1,490
Poison Spider	190
Teapot	10
Total Wyoming	34,740
MONTANA	
Buckley-Border	210
Cat Creek	730
Cut Bank	5,200
Kevin-Sunburst	3,600
Lake Basin	40
Pondera	1,920
Total Montana	11,700
COLORADO	
Florence	340
Fort Collins and Wellington	440
Iles Dome	2,360
Moffat	490
Orchard	80
Rangely	80
Tow Creek	170
Total Colorado	3,960
NEW MEXICO	
Artesia	620
Cooper area	2,210
Eunice area	2,760
Hobbs	31,260
Hogback	200
Jal	3,470
Lea area	1,440
Maljamar	1,930
Rattlesnake	740
Table Mesa	90
Total New Mexico	45,720
Total Rocky Mountain region	96,120

JAMES G. NEWCOMB DIES

James G. Newcomb, retired executive of the Standard Oil Co. of New Jersey, who resided in New York, died suddenly in Pasadena, Calif., last week. Mr. Newcomb, who had wintered in Pasadena for the past 20 years, was a supporter of the Metropolitan Museum of Art and various charitable and philanthropic enterprises.

C. P. DODGE DIES

Clarence Porter Dodge, 40, assistant sales manager of the Texas Co. of California, died Saturday afternoon of pneumonia, just 15 minutes before his brother, H. W. Dodge, vice president and general sales manager of the Texas Corp., arrived from New York by airplane.

East Central Texas Wildcats

(Continued from Page 41)

HUNT COUNTY

Cauble & Thompson's No. 1 Reed, 330 ft N of northerly NE cor. of C. B. Payne Sur., but in F. Thweatt Sur., 3 miles SE of Greenville.
Coring 2,123 ft.

Shawver et al's No. 1 Phillips, 1,200 ft. E of Winan's No. 1 Phillips, University Lands Sur., 2 miles W of Commerce.
Drlg. 1,842 ft.

KAUFMAN COUNTY

Germany et al's No. 1 Clark, 951 ft. N and 1,000 ft. W of tract, S. Eden Sur.
S.D. 1,733 ft.

Murry & Emerson's No. 1 G. W. Martin, 1,660 ft. from W and 250 ft. from N of 140-ac. tract, from W. L. C. Butler Sur., 2 miles NE of Kemp.
S.D. 27 ft.

L. P. Kean's No. 1 J. B. Hunter, R. Sowell Sur., 300 ft. from SW and 150 ft. from SE of 50-ac. tract, 4 miles S of Terrell.
S.D. 2,876 ft.; took core.

LIMESTONE COUNTY

Chapman's No. 1 Hunt, 200 ft. from N and 350 ft. from W line 34.75-ac. tract, Israel Wood Sur., 3 miles NE of Kosse.
Top Austin 2,985 ft.; drlg. 3,210 ft.

C. F. Carter's No. 1 Dean, 660 ft. from SE and 330 ft. from SW lines of 75-ac. tract, P. Valella Sur., 3½ miles SW of Mexia.
S.D. 1,717 ft.

Crawford's No. 1 Vol DeLong.
S.D. 2,307 ft.

Doughtry et al's No. 1 S. Welch, 150 ft from NW and 900 ft. from NE of 77.64-acre tract in A. Varilia Sur., 4 miles W of Groesbeck.
Drlg. 1,762 ft.

McCLENNAN COUNTY

Humble O. & R. Co.'s No. 1 Dvosky, 1,400 ft. from E and 330 ft. from S line, J. A. Roffee Sur., 3 miles NE of West.
Location.

NACOGDOCHES COUNTY

Murray Oil Co.'s No. 1 C. B. Watkins, 150 ft. from N line and 330 ft. from NW lines of 160-ac. tract, 3 miles S of Caro, H. Y. Bailey Sur.
Drlg. by junk.

Wells et al's No. 1 Z. Ramblin, 900 ft. N and 330 ft. W of SE cor. of tract and survey, J. Simpson Sur., 12 miles NE of Nacogdoches.
Drlg. 460 ft.

NAVARRO COUNTY

Bennett Brothers' No. 1 T. E. Stewart, 150 ft. from NE line of lease, 10 miles SW of Corsicana, Wm. R. Bowen Sur.
S.D. 1,136 ft.

R. B. Codding et al's No. 1 Lela Kent, 450 ft. from S line and center of N and S lines of lease, 3 miles NE of Chatfield, C. B. Emmons Sur.
S.D. 1,340 ft.; (corrected).

W. J. Keeling et al's No. 1 J. F. Rushing 484 ft. from N line and 150 ft. from W line of 184-ac. tract, 6 miles SW of Richardson, Henry Ford Sur.
S.D. 2,880 ft.

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-acre tract, 1 mile W of Dawson, William Moss Sur.
S.D. 625 ft.

McGlothlin's No. 1 Dobbin, 150 ft. W and midway from N and S lines of 138-ac. tract, E. Lowry Sur., 2 miles N of Corsicana.
Drlg. 492 ft.

McGlothlin et al's No. 1 Barnett, 1,230 ft. N and 150 ft. W of 355-ac. tract, Elisha Powers Sur.
Location.

Wiggins et al's No. 1 Donoho, 450 ft. from N and 1,101 ft. from E lines in John Couple Sur., SW of Corsicana.
Derrick.

RED RIVER COUNTY

Abercrombie & Harrison's No. 1 Roberts, 4,500 ft. from E and 500 ft. from N line of John Ware Sur., 8 miles N of Clarksville.
Coring 1,852 ft.

Dinger's No. 1 W. T. Norris, 1,000 ft. from S and 1,900 ft. from W of 480-ac. tract. Jos. Guest Sur., 1 mile S of Detroit.
Rigged up.

RUSK COUNTY

George Hudson et al's No. 3 Jeff Phillips 150 ft. from N line of survey and 700 ft. from W line of 100-ac. tract, 4 miles SE of Minden N. Villaria Sur.
S.D. 3,673 ft.

Ben Lamb's No. 1 H. Leath, 330 ft. out of NW cor. of 185-ac. tract in L. J. Dooley.
S.D. 3,650 ft.

Richardson's No. 1 Wood.
Derrick.

SMITH COUNTY

Cloud et al's No. 1 Dendall, 330 ft. from S and W of 55-ac. tract, J. Williams Sur., 3 miles E of Van Field.
S.D. 1,100 ft.

TITUS COUNTY

S. Rotondi's No. 1 Lillianstun, 1,200 ft. E from NW cor. of J. Bodt Sur. and 330 ft. N, but in W. H. Crawford Sur., 5 miles NE of Talco.
Derrick.

VAN ZANDT COUNTY

Delcambre et al's No. 2 Crim, 400 ft. from S and 150 from E lines, Nacogdoches Co. School Lands.
T.D. 1,327 ft.

Pet. P. L. & Storage Co.'s No. 4 Mrs. S. McGee, 450 ft. S of N line and 155 ft. E of W line of 53.4-ac. tract, Blk. 20.
S.D. 1,268 ft.

Wise & Jackson's No. 2 Sanger, 316 ft. W of SE cor. and 151 ft. S of S line of Pure-Blackstock lease, John Walling Sur.
Drlg. 356 ft.

Gillum and Allen et al's No. 1 A. T. Bass 150 ft. from W line and 150 ft. from N line of 10-ac. tract, William Hart Sur.
S.D. 1,700 ft.

Green and Winn's No. 1 Eaton, 320 ft. out of most westerly SW cor. of J. Wilson Sur., 2 miles SE of Martin.
Location.

J. Beren et al's No. 1 Bryant, 483 ft. N of same operator's dry hole, Nacogdoches County School Land Sur.
S.D. 1,325 ft.

Lane-Tex Co.'s No. 1 Listenbee, 150 ft. N and E of tract, Wm. Daniel Sur.
S.D. 1,279 ft.

Beren et al's No. 2 Palmer, 544 ft. from S and 686 ft. from E of 69.5-ac. tract, Nacogdoches County School Land.
S.D. 1,080 ft.

Miller et al's No. 1 J. M. Palmer, 150 ft. from S and E lines of 69-ac. tract, Nacogdoches County School Land Sur.
S.D. 1,188 ft.; building storage.

M. Rouch et al's No. 1 Bearden & Palmer 150 ft. out of SE cor. of 61-ac. tract, Nacogdoches C.S.L.
S.D. 1,237 ft.

Wadley's No. 1 Carnes, 500 varas N and 1,000 varas E of most northerly SE cor. of 588-ac. tract, S.P. Sur.
Elev. 353 ft.; coring 4,636 ft.

WOOD COUNTY

Bryant & Spear's No. 1 Consumer Lignite Co., 150 ft. out of most westerly NE cor. of J. F. McMahon Sur., SE of Alba.
S.D. 1,586 ft.

West Texas Wildcats

(Continued from Page 40)

ECTOR COUNTY

Amerada Pet. Co. et al's No. 1 Holt, 1,980 ft. from S and E. Sec. 20, Blk. A.
T.D. 4,322 ft.; swabbing and cleaning out.

Atlantic Oil Prod. Co.'s No. 1 T. P. Land Trust, 440 ft. from N and W of SE Sec 11, Blk. 43, Twp. 1s. T.&P. Sur.
Drlg. 4,015 ft.

Empire Gas & Fuel Co.'s No. 1 Cummins, 440 ft. from S and E, Sec. 10, Blk. 45, Twp. 1n, T.&P. Sur.
Location.

G. Farley's No. 1 Connell, 990 ft. from S and 330 ft. from E, Sec. 11, Blk. B-16, P.S.L. Sur.
Drlg. 2,106 ft.

Gulf Prod. Co.'s No. 1 Goldsmith, C of NW, Sec. 10, Blk. 44, Twp. 1s, T.&P. Sur.
Drlg. 435 ft.

International Pet. Corp.'s No. 1 Cowden, 660 ft. from S and E, Sec. 25, Blk. 44, Twp. 2s. T.&P. Sur.
T.D. 1,345 ft.; underreaming csg.

Landreth Prod. Co.'s No. 1 Clarence Scherbauer, 660 ft. from S and E lines of Sec. 20, Blk. 44, Twp. 1n, T.&P. Sur.
T.D. 4,236 ft.; plugged back to 4,186 ft.; S.D.

Penrose et al's No. 1 Kloh & Rumsey, 2,310 ft. from S and E, Sec. 31, Blk. 45, Twp. 1s, T.&P. Sur.
Drlg. 415 ft.

Phillips Pet. Co.'s No. 1 Scharbauer, 990 ft. from S and 330 ft. from E, Sec. 16, Blk. B-15.
Drlg. 1,578 ft.

EDWARDS COUNTY

Harry Adams' No. 1 Holman, 1,650 ft. from N and 330 ft. from E, Sec. 22, C.C.S.D. &R.G.N.G. Sur.
Show oil 530-35 ft.; T.D. 602 ft.

EL PASO COUNTY

Mesa Oil Co.'s No. 1 Coronado Valley.
S.D. 1,415 ft.

FISHER COUNTY

Merry Bros. and Perrini's No. 1 Howard. 1,320 ft. from N and 660 ft. from E. Sec. 136, Blk. 3, H.&T.C. Sur.
T.D. 3,665 ft.; T.D. 3,670 ft.; 1,500 ft. oil and 1,700 ft. water in hole; set casing.

Roeser & Pendleton's No. 2 Hill, 2,310 ft. from N and 330 ft. from E, Sec. 203, B.B.B.&C. Sur.
T.D. 3,128 ft.; swabbing and cleaning out.

GLASSCOCK COUNTY

John I. Moore et al's No. 1 McDowell, 2,310 ft. from S and 2,397 ft. from E, Sec. 21, Blk. 34, Twp. 2s, T.&P. Sur.
Location.

John I. Moore et al's No. 1 J. S. McDowell. 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Drlg. 3,967 ft.

HOWARD COUNTY

C. Henson et al's No. 1 B. Scott, 330 ft. from N and 1,650 ft. from E, Sec. 93, Blk. 29, T.&P. Sur.
Drlg. 928 ft.

Siegel's No. 1 Foster, 990 ft. from S and 330 ft. from W, Sec. 43, Blk. 29.
Shut down.

JEFF DAVIS COUNTY

C. M. Joiner's No. 1 Jones & Coffield, 770 ft. from N and 1,322 ft. from E, Sec. 8, Blk. 3, H.&T.C. Sur.
Drlg. 310 ft.

JONES COUNTY

Campbell et al's No. 1 Rowell, in E half of W half, Sec. 6, T.&P. Sur.
Drlg. 362 ft.

Campbell et al's No. 1 Enevill, 1,400 ft. from N and 270 ft. from W, Sec. 2, M.E.&P. Sur., ¼ mile S of Anson.
Drlg. 1,979 ft.

Cal-Tex Oil Co.'s No. 1 Smith, 1,400 ft. from S and 2,000 ft. from E, Sec. 25, Blk. 19, T.&P. Sur.
S.D. 1,120 ft.

Dr. C. E. Johnson's No. 1 Young, 1,800 ft. from N and 750 ft. from W of SE 290 acres of B. Travenio Sur.
S.D. 1,070 ft.

McKensie & Bland's No. 1 First Nat'l Bank of Anson, 300 ft. from S and E, Sec. 53, D.&S.A. Sur.
Spudded.

Owen et al's No. 1 Johnson & Dunwoody, 3,750 ft. from S and 330 ft. from W, Sec. 6, Blk. 17, T.&P. Sur.
Spudded and S.D.

Richards et al's No. 1 Ransom, 200 ft. from N and E, Sec. 244, B. M. Clopton Sur.
S.D. 750 ft.

Bill Rhodes' No. 1 Wood, 300 ft. from S and E, Sec. 2, Blk. 2, T.&N.O. Sur.
Drlg. 1,846 ft.

Texas Inland Oil Co.'s No. 1-A Sayles, 35 ft. W and 150 ft. N of NW cor. of Lot 1, but in Lot 7, Blk. 26, T.&P. Sur.
T.D. 1,880 ft.; ran casing.

LOVING COUNTY

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft from N and 1,650 ft. from W, Sec. 12, Blk. 57, Twp. 1, T.&P. Sur.
S.D. 2,030 ft.

Mason Oil Co.'s No. 1 Kyle, 1,980 ft. from S and E, Sec. 22, Blk. 55, Twp. 1, T.&P. Sur.
Location.

LYNN COUNTY

Hart Oil Co.'s No. 1 Edwards, 220 ft. from N and 200 ft. from W of SE Sec. 29, L.&S.V. Sur.
Drlg. 2,080 ft.

MARTIN COUNTY

Wright & Scott's No. 1 Flannigan, 330 ft. N and E, Sec. 22, Blk. 37, Twp. 1s, T.&P. Sur.
Spudded and S.D.

MITCHELL COUNTY

Harry Adams' No. 1 Mackey, 1,980 ft. from N and 660 ft. from W, Sec. 13, Blk. 29, Twp. 1n, T.&P. Sur.
Drlg. 2,429 ft.

Sawtell & Grueber's No. 1 Morrison
Drlg. 852 ft.

McCULLOCH COUNTY

Goggins' No. 1 Craven Estate, 1,390 ft. from S and 2,480 ft. from W, Gus Dreiss Sur.
Drlg. 165 ft.

Hones et al's No. 1 Cox, 450 ft. from S and 150 ft. from E, David Pope Sur.
Drlg. 687 ft.

Miller et al's No. 1 Black, 160 ft. from N and 175 ft. from E, Sur. 290, H.&T.C. Sur., 3 miles E of Placid.
Drlg. 300 ft.

PECOS COUNTY

Gulf Prod. Co.'s No. 4 White & Baker, 2,310 ft. from N and 330 ft. from E, Sec. 46, Blk. Z, T.C. Sur.
Drlg. 715 ft.

Messenger's No. 1 Dr. Sibley, 4,930 ft. from S and 990 ft. from W, Sec. 6, Blk. 9, H.&G.N. Sur.
Location.

Shell Pet. Corp.'s No. 1-A Carlson-University, 660 ft. from N and E, Sec. 36, Blk. 16, T.D. 1,987 ft.; set packer.

Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
S.D. 1,520 ft.

REAGAN COUNTY

Dobbs' No. 1 Friend, 2,310 ft. from S and 660 ft. from W of Blk. 3, Wm. Allen Sur., 3 or 4 miles S of Big Lake.
Drlg. 725 ft.

Skelly Oil Co.'s No. 1-D H. S. Grayson, 1,980 ft. from N line and 660 ft. from W line of Sec. 33, Blk. 8, University Land Sur.
S.D. 9,439 ft.; tested but with no success.

REEVES COUNTY

J. E. Cunningham's No. 1 Altman, 2,810 ft. from N line and 1,980 ft. from E line of Sec. 1, C. C. Wyatt Sur.
S.D. 3,673 ft.

Herbert Oil Co.'s No. 1 Williams & Walker, 5,280 ft. from S and 1,320 ft. from E, Sec 17, Blk. 6, H.&G.N. Sur.
Material.

RUNNELS COUNTY

Dennis et al's No. 1 Wash, 550 ft. from N and 560 ft. from E of W half, Sec. 123, E.T.R.R. Sur.
Spudded and S.D.

Melrose Oil Co.'s No. 1 L. P. Woods, 150 ft. from NE lines and 3,475 ft. from W line of survey, Willett Holmes Sur. No 100.
S.D. 2,507 ft.

R. Wells' No. 1 James, 396 ft. from N and 330 ft. from E of James tract in Sec. 16, D. Diaz Sur.
S.D. 1,100 ft.

SCHLEICHER COUNTY

John M. Cooper et al's No. 1 Bert Page 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. L, G.H.&S.A. Sur.
To test; T.D. 5,987 ft.

W. C. Proctor et al's No. 1 Judkins & Spencer, 1,920 ft. from S and W of W. W Russell grant.
Rigged up; standard tools.

SCURRY COUNTY

Coffield & Guthrie's No. 1 Holliday, 2,310 ft. from N and 330 ft. from W, Sec. 120 Blk. 97, H.&T.C. Sur.
Cleaning out 2,967 ft.

McLaughlin's No. 1 Allen, 1,331 ft. from N and 1,338 ft. from E, Sec. 298, Blk. 97
S.D. 485 ft.

STERLING COUNTY

Merry Bros. & Perrini's No. 1 Standsberry 1,980 ft. from N and E, Sec. 20, Blk. 30, W.&N.W. Sur.
Drlg. 375 ft.

STONEWALL COUNTY

Merry Bros. and Perrini et al's No. 1 Williams, C SW of SW Sec. 6, Blk. C, A B &M. Sur.
S.D. 3,000 ft.

SUTTON COUNTY

Texs et al's No. 1 Mower, 1,980 ft from S and W of Sec. 39, Blk. 5, T.W.&N.G. Sur
T.D. 3,250 ft.; to run csg.

TAYLOR COUNTY

Dunnigan Bros. et al's No. 3 Hunter, 225 ft. from S and 750 ft. from W, Sub. 14 Willis Sur.
T.D. 2,350 ft.; testing water shutoff.

Meredith et al's No. 1 Pittle, 330 ft. from N and E of Sec. 27, Blk. 19, T.&P. Sur., 1 mile NE of Trent.
Location.

TERRELL COUNTY

W. A. Sudderth's No. 1 Phelps, 2,157 ft. from N line and 2,482 ft. from the W line of Sec. 5, Blk. 4-A, G. W. Turley Sur.
S.D. 5,635 ft.

UPTON COUNTY

Baldridge Oil Co.'s No. 1 S. Peck, 440 ft. from S and E. Sec. 29, Blk. 41, Twp. 4s, T.&P. Sur.
Material.

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft from S and 660 ft. from W, Sec. 197, Blk F, C.C.S.D.&R.G.N.G. Sur.
S.D. 11,081 ft.

Humble Oil & Ref. Co.'s No. 1 Pollock, C of NW, Sec. 4, Blk. M.
S.D. 335 ft.; rigged up rotary.

King Mountain Pet. Co.'s No. 1 Sherk, 330

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ft. from S and W, Sec. 39, Blk. 1, M.K.&T. Sur.
Drlg. 1,000 ft.
Williams & Williams Drlg. Co.'s No. 1 Robbins, 1,600 ft. from S and 1,900 ft. from E, Sec. 4, G.C.&S.F. Sur.
S.D. 2,040 ft.; 1,700 ft. oil in hole.

WARD COUNTY

Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27, Blk. 34, H.&T.C. Sur.
Drlg. 1,545 ft.
Atlantic Oil Prod. Co.'s No. 1 Monroe, 566 ft. SW and 350 ft. SE of E cor. of J. C. Russell Sur. No. 3, but in Sec. 2, J. V. Border's Sur.
S.D. 640 ft.
Bradford et al's No. 1 E. R. Allen, 660 ft. from NW line and 551 ft. from NE line, Sec. 11, H.&T.C. Sur.
S.D. 760 ft.
Caprito's No. 1 Hardage & Wilson, 2,310 ft. from NE and 990 ft. from SE, Sec. 11, Blk. 34, H.&T.C. Sur.
Material.
Cook Drlg. Co.'s No. 1 Wood, 330 ft. from NW and SW, Sec. 5, W. F. Stewart Sur.
T.D. 2,548 ft.
Gulf Prod. Co.'s No. 52 O'Brien.
Tools stuck at 2,867 ft.
Gulf Prod. Co.'s No. 55 O'Brien, 1,650 ft. N and 330 ft. from E, Sec. 18, Blk. F.
Derrick.
Postelllo & Caprito's No. 1 Purcell, 330 ft from NE and 990 ft. from NW, Sec. 17, Blk. 34, H.&T.C. Sur.
Fishing 2,775 ft.
Rector Oil Co.'s No. 1 Monroe, 660 ft. from SE and NE, Sec. 2, Blk. 1, W.&N.W. Sur
Drlg. 2,040 ft.
Sageland Oil Corp.'s No. 2 Pure-Bennett 1,650 ft. from NW and 2,310 ft. from SW S.D. 220 ft.
Jerry Sines' No. 1 Brown, 330 ft. from NW and NE, Sec. 13, Blk. 5, H.&T.C. Sur.
Location.
West Texas O. & R. Co.'s No. 1-C University, 330 ft. from N and E, Sec. 6, Blk. 16.
Drlg. 955 ft.

WINKLER COUNTY

Barnsdall Oil Co.'s No. 1 Brown & Aultman, 2,310 ft. from N and W, Sec. 6, Blk. 5, P.S.L. Sur.
Drlg. 235 ft.
Harry Adams' No. 2 Scarborough, 990 ft. from N line and 990 ft. from W line, Sec. 2, Blk. 77, P.S.L. Sur.
Location.
Humble Oil & Ref. Co.'s No. 2-A Walton, 660 ft. from S and W, Sec. 48, Blk. 26.
Location.
Jeffries et al's No. 1 Brown & Altman, 2,310 ft. from S and W. Sec. 6, Blk. B-5
T.D. 3,098 ft.; drlg. 2,979 ft. in new hole.
Dr. Jeffries et al's No. 1 Underwood, 330 ft. from S and 2,310 ft. from E, Sec. 26, Blk B-3.
S.D. 800 ft.
J. C. Maxwell's No. 1 Clapp, 2,310 ft. from N and 330 ft. from E, Sec. 27, Blk. 26. P.S.L. Sur.
Fishing 3,487 ft.; flowing sulphur water; to plug back.
Maxwell's No. 1 Daugherty.
Drlg. 2,890 ft.; oil at 2,820 and 2,870 ft.
R. S. Mathews et al's No. 1 Evans, 1,320 ft from N line and 1,320 ft. from W line Sec. 46, Blk. 75, P.S.L. Sur.
S.D. 110 ft.
Mid-Continent Pet. Corp.'s No. 2 Howe, 1,650 ft. from N and 330 ft. from W, Sec. 12, Blk. 26.
Drlg. 2,305 ft.
Richardson's No. 1 Walton, 1,010 ft. from S and 330 ft. from W, Sec. 1, Blk. B-3.
Drlg. 502 ft.
Sid Richardson's No. 1 Hill, 1,980 ft. from E line, 660 ft. from S line, Sec. 18, Blk. B-11, P.S.L. Sur.
T.D. 3,846 ft.; plugged back to 3,444 ft.; to test.
Sayre Oil Co.'s No. 1 Leck, 330 ft. from S and E, Sec. 2, Blk. 26, P.S.L. Sur.
Fishing 2,737 ft.; 10,000,000 ft. gas here.
Sayre Oil Co.'s No. 2 Howe, 330 ft. from N and W, Sec. 12, Blk. 26, P.S.L. Sur.
Location.
Skelly Oil Co.'s No. 2 Hailey, 1,320 ft. from N and 2,200 ft. from E, Sec. 25, Blk. B-11, P.S.L. Sur.
T.P. 2,850 ft.; T.D. 3,072 ft.; fishing tools.
Sloni Oil Co.'s No. 1 Lowett, 330 ft. from N and E, Sec. 36, Blk. 26, P.S.L. Sur.
Location.
Sinclair Prairie Oil Co.'s No. 2 Cummins, 330 ft. from N and E, Sec. 11, Blk. 26. P.S.L. Sur.
S.D. 2,970 ft.; T.D. 2,880 ft.; flowed 220 bbls. in 15 hrs.
Sun Oil Co.'s No. 1 Hailey, 2,200 ft. from N and 440 ft. from E, Sec. 24, Blk. B-12. P.S.L. Sur.
Drlg. 346 ft.

Southwest Texas Wildcats

(Continued from Page 38)

Seidemann et al's No. 2 Seidemann, 400 ft. from NW line, 360 ft. from NE line of 147.5-ac. tract, Esnaurrizer Sur.
Spudded.
H. H. Weinert et al's No. 1 Sylle Schmidt, beginning at most southerly S line of E. Irhof 337-ac. tract, NW 700 ft. thence at R/A 300 ft., Wakefield Sur.
Abd. 2,674 ft.

HIDALGO COUNTY

Clay, Spencer & Hood's No. 1 Brooks & Showers, 330 ft. N and E lines of Lot 4, Blk. 26, Por. 79-80.
Drlg. 2,940 ft.
Hardy & Lynch's No. 1 Southland Dev. Co., 330 ft. N and W lines, Blk. 14, Por. 17.
Spudded and S.D.
Harrison, Medline et al's No. 1 G. L. & C. Co., 950 ft. W line, Por. 42, 330 ft. N of Old Military Road, in Por. 43.
Coring 3,030 ft.
Harrison's No. 1 Daskam.
Drlg. 4,270 ft.
Kingwood Oil Co.'s No. 1 Daskom, 215 ft. W line, 218 ft. N line of Lot A-23, Blk. 49, Porcion 41.
Coring 4,000 ft.
Kingwood Oil Co.'s No. 1 Doughty, 1,214 ft. from N line, 3,750 ft. from W line of Tract 90, in San Salvador del Tule grant.
Drlg. 1,870 ft.
Maxwell-Young's No. 2 King, 175 ft. N and E lines of Lot 3, Blk. 11.
T.D. 875 ft.; to D.D.
Downey & Morton's No. 1 Daskom, 450 ft. from E line, 55 ft. from S line of Blk. 34, Por. 45.
Drlg. 2,450 ft.
Nutex Oil Co.'s (Hankamer & Camp) No. 1 F. Rapp 511-ac. tract, Laguna Seca League. Moving in material.
Gato Oil Co.'s No. 1 Brocks & Showers, 50' ft. W line, 400 ft. N line of Tract 3, Blk. 26, Por. 79.
S.D. 5,025 ft.

JIM HOGG COUNTY

Miller & Pippin's No. 1 Yeager, 527 ft. S line, 150 ft. E line of Blk. 6, Sur. 20.
Coring 1,219 ft.
G. H. Von Rossun's (John D. Norwood) No. 1 C. W. Hellen, 330 ft. N and W lines, Sur. 48.
T.D. 1,338 ft.; S.D. for orders.
J. M. Shugart's No. 1 R. Holbien, 100 ft from E line, 330 ft. from S line of Blk. 55, Sur. 17 of Holbien Subd., of Las Animas grant.
S.D. 490 ft.
Texas Co.'s No. 1 C. W. Hellen, 5,742 ft. S line, 6,562 ft. E line of Sur. 150.
Drlg. 1,735 ft.

JIM WELLS COUNTY

Maer & Shira's No. 1 Schaeffer, 1,320 ft. E of NW cor. center of Blk. 15, of subdivision of ranch.
Drilling.

KARNES COUNTY

R. G. Tonkin's No. 1 Miss Olive Henke, 2,640 ft. from SW cor. N along W line, thence at R/A 330 ft., Seguin grant.
Reaming to set csg. 2,150 ft.
R. W. Norton's No. 2 Choate, 1,020 ft. from N cor. of 320-ac. tract, 330 ft. SW of NE line, A. Storey Sur.
Drlg. 1,590 ft.

KERR COUNTY

Meteor Oil Co.'s (Edminton & Walker) No. 1 Whitworth, 1,160 ft. from S line and 1,333 ft. from E line of Sec. 1,439, of the H.E.&W.T. Sur.
Prep. to set 12½ lin. surface csg. at 800 ft.
Jeff Love and Eastland Oil Co.'s No. 5-E Jeff Love, 1,500 ft. SE of No. 1 and 1,53[illegible] ft. from SE cor. and 300 ft. from N line of Sec. 1,591.
T.D. 3,530 ft.; fishing U.R. lug at 3,460 ft.

LEE COUNTY

Humble O. & R. Co.'s No. 1 J. Simmons, 269-ac., 3,650 ft. from S line, 2,510 ft. from E line, Hunter Sur.
Drlg. 3,970 ft.
Jas. E. Pederson's No. 1 Turner, 1,860 ft from N line, 150 ft. from E line of tract David Hudson Sur.
T.D. 6,560 ft.; tested 1,700 ft. S.W.; pumping back.
Stowe & Scharlach's No. 1 Otto.
T.D. 1,700 ft.; standing; moving in new boiler to deepen to Edwards lime.

LIVE OAK COUNTY

Arthur, Brunson & Hall's No. 1 W. P Howard, 150 ft. from W line, 2,400 ft. from N line of 200-ac. tract, in B. Ayers Sur.
Drlg. 779 ft.
Baugh & McMillan's No. 1 Walton & Campbell, 1,500 ft. NE line and SE line of D. R. Fant Sur.
Drlg. 2,000 ft.
Berry & Hayes' No. 1 C. L. Terrell, 1,600 ft. N line, 330 ft. E line of Henry Sur.
Drlg. 810 ft.
California Co.'s No. 1 Blankenship, 466 ft. from SW line, 2,000 ft. from SE line, A. A. Dunn Sur.
Set surface csg. 500 ft.
Henderson Coquat's (Luling O. & G. Co.) No. 1 Rex, C of SW¼ of G.H.&H. Sur., Abst. 197, 3 miles S of Mileska.
Building derrick.
Lee McCoy et al's No. 1 R. Murry, 1,000 ft. from S line, 4,900 ft. from E line of Hefferson Sur.
S.D. 410 ft.; showing gas.

MAVERICK COUNTY

Escher & Andrews' No. 1 Mathews, NW cor. of B. C. Flowers Sur.
S.D. 480 ft.

McMULLEN COUNTY

Points et al's No. 1 Fahler, 2,000 ft. from S line, 2,500 ft. from W line of 1,000-ac. tract, Pittuck Sur.
Drlg. 335 ft.
Texas Pet. Co.'s No. 1 Two Rivers ranch.
Drlg. 1,100 ft.
Witherspoon Oil Co.'s No. 1 Fisher, 200 ft. from N and E lines of Blk. 19, O'Boyle Sur.
Spudded.

MEDINA COUNTY

Scoggins & Sanders' No. 1 L. W. Burrell, 150 ft. from E line, 1,750 ft. from N line of M. E. Gage Sur. 395.
S.D. 1,880 ft.

MILAM COUNTY

C. F. Drake et al's No. 1 Standard Coal Co. 970 ft. SW line, 1,700 ft. SE line of G L. Johnson Sur.
Moving in heavier rig; T.D. 1,575 ft.
Frank W. Kellar, Inc.'s No. 1 A. L. Lucas, 1,950 ft. from N line, 400 ft. from E line of 178-ac. tract, J. Real Sur.
Drlg. 1,500 ft.
Second Natl. Bank's No. 1 B. P. Ward, 150 ft. SW line, 950 ft. SE line of 100-ac. tract, L. Taylor Sur.
Abd. dry at 3,300 ft.

NUECES COUNTY

Magnolia Pet. Co.'s No. 1 S. Page, 190.8 ft. from W line, 196 ft. from N line of 75-ac. tract in Kinney Sur. No. 586, Sec. 8.
Spudded.

REAL COUNTY

H. J. Heartwell et al's No. 2 L. J Maby, 694 ft. from W line and 2,152 ft. from S line of A.B.&M. Sur. No. 175.
T.D. 2,827 ft.; running 8-in. csg.

SAN PATRICIO COUNTY

Allied Minerals' No. 1-A Ramsey, 466 ft. E, 220 ft. N of SW cor. of the North B. Giddings Sur. on a 1,000-ac. tract.
Sandy shale 2,642 ft.; moving in heavier rig; S.D.
Lonnie Glasscock's No. 1 M. F. Timmons, 330 ft. out of SE cor. of Blk. 27, San Patrico townsite.
No report.
Stanolind O. & G. Co.'s No. 1 J. J. McMillan (Whitehurst), 165 ft. from W line, 990 ft. from N line of Lot 12, Fulton Pasture Subd., Fitzsimmons League.
Rigging up to spud.

STARR COUNTY

Armstrong, Emanuel & Adams' No. 1 S.C. C.C., 330 ft. from S and E lines of Blk. 57, Porcion 38-39.
W.O.C. 2,570-74 ft.
C. R. Borah's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E lines of Sec. 6 (NE part of county).
S.D. 2,627 ft.
Conway & Emanuel's No. 1 S.C.C.C., Blk. 62, Por. 88.
No report.
John H. Clopton's No. 1 Roca, 13,155 ft. N of Highway 4, along E line of Por. 93, 3,300 ft. N, 80 deg. 45 min. W.
S.D. 3,052 ft.
Crawford et al's No. 1 Hicks et al, 150 ft. SE and NE line of NW, Perdernal grant.
S.D. 1,506 ft.
Dainwood Oil Co.'s No. 1 Guerra, 5,280 ft. W line and N line of Share 26, Porcion 70-71-72.
Location.
F. D. Vernon's No. 1 G.L.&C.C.O., 330 ft. midway between N and S lines of Lot 8, Porcion 100.
Drlg. 2,700 ft.
Morris & Bryan's No. 1 Hicks & Hicks, 660 ft. NE line, 2,000 ft. SE line of 500-ac. tract, Pedernal grant.
T.D. 1,100 ft.; no report.
C. L. Smith et al's No. 1 J. M. Longfellow, 330 ft. out of NW cor. of Sur. No. 281.
Abd. 5,511 ft.
Conroe Drlg. Co.'s No. 1 Guerra, 330 ft. from NE and SE lines of Blk. 35, J. N. Crawford Subd., Por. 56, Jurisdiction of Mier.
S.D. 2,050 ft.
Dale Sneed's No. 1 Y. and V. Guerra, 330 ft. W line of Por. 68, 330 ft. S line of 1,000-ac. block of N end of Por. 92, in Por. 68.
W.O.C. 208 ft.
Sunray Oil Co.'s No. 1 S. Sanchez, 1,500 ft. S of Great Plains' No. 1, in Sur. 344.
W.O.C. 210 ft.
E. L. Younkin's No. 1 Kelsey Bass, 330 ft. from S line, 7 ft. from W line of Blk. 19, in Porcion 87.
Drlg. 2,608 ft.

TRAVIS COUNTY

D. Prewitt's No. 1 Ed Peterson, 150 ft. from SE and SW lines of tract, L. Kimbro Sur.
Rigging up.
C. A. Stubbs' No. 1 Julius Kerlin, 530 ft. SW line, 450 ft. NW line of 123-ac. tract in I. Lindsay Sur. No. 61.
T.D. 1,060 ft.; no report.
Title et al's No. 1 Johnson, 330 ft. each way from cor. of 50-ac. tract in Kimbro area.
Abd. 1,100 ft.

WEBB COUNTY

Mills Bennett's No. 1 Slator, 330 ft. SW and NW lines of Blk. 46, Mission Oil Co. Subd., Borrego grant.
No report.
Payne et al's No. 1 Hoggterp, Blk. 6, Sur. 1,110, N of Oilton.
Spudded and S.D.
Arthur H. Wray's No. 1 Geo. Stuempke, Share 1, Brewster pasture, Galan grant.
Spudded; moving in heavier rig.

WILLACY COUNTY

Daniel et al's (South Texas Dev. Co.) No. 1 Armendias, 1,500 ft. W of Arroya Colorado River, 1,200 ft. N of S line of Tract 4.
S.D. 2,640 ft.; clearing titles.

WILLIAMSON COUNTY

Burns & Schramm's No. 1 Bruns, 1,200 ft. SW along SE line of T. A. Biggus Sur. from E cor., thence 444 ft. SE in J. W. Fisher Sur.
Abd. 1,420 ft.
Fritz Fuchs' No. 1 Pflugger, 500 ft. S and E lines of Jacob Sapington Sur.
S.D. 900 ft.
Johnson & Ray's No. 1-B M. Oxford Smith, 600 ft. S of No. 1-A in S. Williams Sur.
S.D. 20 ft.
J. Morgan Russell's No. 1 Nelson, 1,150 ft. S line, 1,115 ft. E line of John L. Justice Sur. No. 2.
S.D. 894 ft.

ZAPATA COUNTY

Dinn's (Danvers & Harrison) No. 1 M. J. Vela, 686 ft. NE line and 300 ft. NW line, or 3,140 ft. E line and 330 ft. N line of Por. 29, Blk. 7, Bela Subd.
Drlg. 1,900 ft.
H. B. & W. Oil Co.'s No. 1 Cuellar, 150 ft. NE line, 450 ft. SE line of Blk. 3, Sur. 2, Papas Subd., Porcion 34.
Standing 1,345 ft.
H. & M. Oil Co.'s (Virginia Hardee) No. 1 Slator, 514 ft. from SW line, 150 ft. from SE line of Blk. 65, Borrego grant.
Standing 23 ft.
Walter P. Luck's No. 1 A. Trevino, 175 ft. from S and E line of Blk. 41, Sur. No. 13.
No report.
Joe Palmer's No. 1 J. M. G. Martinez, 150 ft. SE and SW line, Blk. 27, Sur. 434.
Standing 1,026 ft.

ZAVALA COUNTY

Van Beavers et al's No. 1 Flowers, 1,600 ft. E line, 600 ft. N line of Sec. 19, I.&G.N. Ry. Sur., Blk. 1.
Rigging up; ready to spud.

Southwest Texas Proven

Week Ending February 9

CARROLL—BASTROP COUNTY

Nelson Pruett's No. 2 J. H. Carroll, 960 ft. from SW line, 4,150 ft. from NW line of A. Mays Sur. No. 19.
S.D. in shale 1,600 ft.

NORTH CEDAR CREEK—BASTROP COUNTY

Joe E. Mills' No. 1 Mrs. W. J. Cardwell, 900 ft. from SE line, 1,200 ft. from SW line of tract, J. A. Navarro Sur.
S.D.; chalk 1,820 ft.

CAESER—BEE COUNTY

Caesar Oil Co.'s No. 3 R. E. Miller.
Drlg. 2,170 ft.
Neversuch Oil Co.'s (J. K. Hughes of Mexia) No. 1 Barroum, 330 ft. from N and W lines of SW 40-ac. of W½ of Barroum 1,068-ac. tract in Baker Sur.
Moving in machinery.
Luling O. & G. Co.'s No. 3 R. E. Miller, N offset to Firm's No. 1 Grissom.
Drlg. below surface csg.
Luling O. & G. Co.'s No. 1 Hudman, SW offset to Firm's No. 1 Grissom.
T.D. 3,051 ft.; I.P. 60 bbls. per hr.; ¾-in. choke; 225 lbs. tubing pressure; 525 lbs. csg. pressure.
Luling O. & G. Co.'s No. 6-B Ruhman, 660 ft. from NW line, 550 ft. from NE line of 163-ac. tract, Hodge Sur.
Derrick.
El Toro Co. of Houston's No. 1 Gardner, 870 ft. from S line, 920 ft. from E line of 105-ac. tract, F. Lewis Sur.
Drilling.

PETTUS—BEE COUNTY

United Prod. Co.'s No. 48 Ray, begin at SW cor. of Houston Oil Co.'s Nichaus "B" Lease, thence in northwesterly direction along property line between Nichaus and Ray, 990 ft. at R/A to previous course, then 330 ft. to point of location.
Drlg. hard lime 2,574 ft.

TULETA—BEE COUNTY

Blanco Oil and Buchanan's No. 1B Peres.
Drlg. 3,600 ft.
Conroe Drlg. Co.'s No. 1 Hayden.
Coring 3,700 ft.
Edwin M. Jones' No. 2 Robinson, 330 ft. from S line, 990 ft. from W line of SW¼ of Sec. 5.
Location.
Edwin M. Jones' No. 1 Skinner & Harris.
Rigging up.
Edwin M. Jones' No. 6 Skinner & Harris, 330 ft. from W line, 990 ft. from S line of E½ of NW¼ of Sec. 10.
To set csg. 3,930 ft.
H. K. Hasselman's No. 1 Sparrow, C of Tract 4, NE¼ of Sec. 20.
T.D. 3,978 ft.; waiting on shooter.
Houston Oil Co.'s No. 3 Ed Strauss, 660 ft. W of No. 1, Lot 3, SW¼ of Sec. 9 in J. M. Uranga grant.
Moving in rig.
Houston Oil Co.'s No. 4 Ed Strauss, 660 ft. W of Heyser & Heard's No. 1 Walton, Lot 2, NW¼ of Sec. 20, J. M. Uranga grant.
T.D. 3,987 ft.; I.P. 6 bbls. per hr.; ½-in. choke.
Houston Oil Co.'s No. 5 Ed Strauss, C of Lot 10, SW cor. Sec. 9.
Drlg. shale 3,200 ft.
Mills Bennett's No. 2 Harris, 990 ft. from E line, 330 ft. from S line, S½ of NW¼ of Sec. 9, Uranga grant.
Derrick.
Mills Bennett's No. 3 Silcock, 330 ft. from S and E lines of 160-ac. tract.
Washing in 3,901 ft.
Southwest Exploration Co.'s No. 1 Heyden & Bruckham, C of farm tract, 330 ft. from N and W lines of Sec. 20, Uranga grant.
Rigging up.
Tuleta Oil Co.'s No. 5 Skinner & Harris, N offset to Bennett's No. 1 Tuleta Merc.
T.D. 3,910 ft.; I.P. 75 bbls. per day; ⅛-in. choke.

VON ORMY—BEXAR COUNTY

Jack Crouch's No. 5 Hoch, 330 ft. S of No. 4, Baerera Sur. No. 58.
S.D. 250 ft.
Richcul Oil Co.'s No. 1 Kohler, 1,000 ft. from N line, 155 ft. from E line of J. Vogt 96.5-ac. tract in J. M. Baerera Sur. No. 58.
Drlg. shale 535 ft.
Richcul Oil Co.'s No. 1 Marshack, 155 ft. from W line, 1,500 ft. from S line of 100-ac. tract, Samuel McCulloch Sur.
Drlg. 335 ft.
Richcul Oil Co.'s No. 1 W. A. F. Vogt, 160 ft. from E line, 972 ft. from S line of 300-ac. in S. McCullough Sur. No. 54.
Spudded.
Richcul Oil Co.'s No. 1 Weilbacker, 155 ft. from E line, about 2,250 ft. S of highway in Jett Sur.
Standing 590 ft.; (depth corrected).
Umburn & Trawalter's No. 4 Wm. Biel.
Drlg. 216 ft.

DRISCOLL—DUVAL COUNTY

Continental Oil Co.'s No. 4-A Clara Driscoll Sevier, 160 ft. from W line, 258 ft. from N line of Sur. 448.
Drlg. shale 2,079 ft.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Bridwell Oil Co.'s No. 2 Schoolfield, 990 ft. from N line, 330 ft. from W line of Blk. 13, Sur. 78.
Spudded.
Central Prod., Inc.'s No. 2 Wendt, 330 ft. from S line, 990 ft. from W line of NE¼ of Sur. 43.
W.O.C. 2,369 ft.
Edgington & Murray's No. 1 C. W. Habl, 330 ft. N and E lines, Blk. 16, Sur. 350.
No report.
Government Wells Oil Co.'s No. 10 Lundell (State), 660 ft. N of No. 8.
Putting on pump 2,276 ft.
Govt. Wells Oil Co.'s No. 1 State, 330 ft. from S and W lines of SE¼ of Sur. 60.
W.O.C. 2,285 ft.

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The Oil and Gas Journal
Tulsa, Oklahoma

Highland Oil Co.'s No. 4 Hahl, 260 ft. from W line, 760 ft. from N line of SE¼ of NW¼ of Sur. 62.
Set csg.; depth not reported.
Humble O. & R. Co.'s No. 2 Vela, 990 ft. from S and E lines of N½ of Sur. 42.
Drlg. 1,945 ft.
Magnolia Pet. Co.'s No. 4 Humble-D.C.R.C., 330 ft. from S line, 1,650 ft. from E line of NE¼ of Sur. 363.
Location.
Magnolia Pet. Co.'s No. 4-C Hahl, 330 ft. from S line, 990 ft. from E line of Sur. 61.
Drlg. 500 ft.
Magnolia Pet. Co.'s No. 6-C Hahl, 990 ft. from W line, 330 ft. from N line of NE¼ of SW¼ of Sur. 61.
Drlg. 705 ft.
Magnolia Pet. Co.'s No. 2 Herbst, 330 ft. from N and W lines of Sur. 70.
No report.
Magnolia Pet. Co.'s No. 4 Ruiz, 1,141 ft. from SW line, 330 ft. from NW line of Sur. 127.
Drlg. plugs 2,443 ft.
Magnolia Pet. Co.'s No. 1 Miguel Ruiz, 330 ft. from S and E lines of NW 200-ac. of S.A.&M.G. Ry. Sur. No. 1.
No report.
Salt Dome Oil Co.'s No. 3-B Moody, 990 ft. from N and E lines of NE¼ of Sur. 60.
No report.
Salt Dome Oil Co.'s No. 4-B Moody, 990 ft. from N line, 330 ft. from E line of NW¼ of Sur. 60.
Drlg. 1,020 ft.
Smith & Story's No. 13 Lundell, 990 ft. from N line, 330 ft. from E line of S½ of Sur. 48.
Testing 2,270 ft.
E. R. Thomas' No. 1 Bishop Cattle Co., 2,325 ft. E line, 330 ft. N line of S½ of Sur. 135.
No report.

DARST CREEK—GUADALUPE COUNTY

Grayburg Oil Co.'s No. 1 Malzer, 72 acres, 193 ft. from NW line, 215 ft. from SW line of 72-ac. tract in J. B. Alexander Sur.
Abd. 2,624 ft.

LUCAS—LIVE OAK COUNTY

Houston Oil Co.'s No. 30 Cartwright, 1,030 ft. N of No. 26.
T.D. 5,266 ft.; set 7-in. csg. at 5,248 ft.; W.O.C.
Lion Oil Ref. Co.'s No. 3 McNeil, 660 ft. N, 660 ft. E of No. 1.
Coring 2,500 ft.

MARBACH—LIVE OAK COUNTY

Durbin et al's No. 2 Marbach, 1,800 ft. from E line, 450 ft. from S line of 428-ac. tract in S. Hays Sur.
T.D. 894 ft.; rerun liner and washing.

SAM FORDYCE—HIDALGO COUNTY

Alamo Drlg. Co.'s No. 2 Guerra, 233 ft. from N line, 330 ft. from E line of NW 12.5 acres of S 75 acres, of Tract 254, Por. 40.
T.D. 2,125 ft.; well controlled and capped.
Bridwell Oil Co.'s No. 1 Pena, 165 ft. from W line, 192 ft. from N line of 9-ac. tract, Tract 270, Porcion 40.
T.D. 2,752 ft.; I.P. 80 bbls. per day; ⅛-in. choke; 100 lbs. tubing pressure.
Cortez Oil Co.'s (Weekly) No. 3 Smith, 240 ft. from N line, 150 ft. from W line of Tract 278, in Por. 40.
Rigging up.
Davis & Harrison's No. 1-A C. E. Smith, Tract B-3, NW 5 acres, 300 ft. from N line, 165 ft. from W line, Por. 41.
T.D. 2,746 ft.; I.P. 225 bbls. per day.
Henshaw Oil Corp.'s No. 1 Seabury et al, C of SW 11.5 acres of NE 45.25 acres, Tract 256, Por. 38.
Location.
Moncrief & Showers' No. 2-A Lawrence, S end of 9.52 acres in Tract 274, Por. 39.
T.D. 2,763 ft.; I.P. 600 bbls. per day.
Moncrief & Showers' No. 3-B Lawrence, 350 ft. from N line, 241 ft. from E line of NE 13.5 acres of E 37.54 acres of Tract 274, Porcion 39.
Rigging up.
Moss & Bass et al's No. 1 F. B. Guerra, 282 ft. N line, 232 ft. W line of W 25 acres of S 50 acres of E 200 acres, Tract 254, Por. 40.
Derrick.
J. M. Newman et al's No. 2 Flores, 190 ft. S line, 340 ft. W line of 10-ac., Tract 275, Porcion 40.
T.D. 2,773 ft.; I.P. 18 bbls. per hr.; ¼-in. choke; 750 lbs. tubing pressure.
Navarro Oil Co.'s No. 3 Seabury.
T.D. 2,721 ft.; P.B. to 2,500 ft. to sidetrack; W.O.C.
Reserve Oil Co.'s No. 2 Seabury, 330 ft. S and E lines of 28-ac. tract, Tract 256, Porcion 38.
Location.
Rogers O. & G. Co.'s No. 2 Guerra, SE 25 acres of Tract 254, Por. 40, 4,500 ft. SE of discovery well.
W.O.C. 2,750 ft.
Waite's (Scheafer & Mundy), Ind. Dist., 25 ft. from N line, 210 ft. from E line of Tract 260, Porcion 38.
Rigging up.
Otto Woods' (Kingwood) No. 4 F. B. Guerra, 330 ft. S and E lines of NW 30 acres of S 150 acres, Tract 254, Por. 39.
Moving in derrick.
Otto Woods' No. 4 John Lawrence, 330 ft. from E line, 250 ft. from S line of W 40 acres, Tract 274, Por. 39.
Rigging up.
Otto Woods' (Kingwood) No. 5 John Lawrence, 165 ft. W line, 235 ft. N line of Tract 274, Por. 39.
Moving on.

SANDIA—JIM WELLS COUNTY

O. W. Killam's No. 4 Wade, ¼ mile N of No. 3 Wade.
Drlg. plugs 4,061 ft.
Magnolia Pet. Co.'s No. 6 Seeligson, 660 ft. W, 330 ft. S of No. 3, Canales Sur. No. 20.
Spudded.
Sinclair Prairie's No. 1-A Seeligson, 630 ft. from N line, 330 ft. from E line of B.S. &F. Sur.
T.D. 3,715 ft.; to sidetrack at 2,342 ft.

JACOB POOL—McMULLEN COUNTY

Loma Oil Co.'s No. 103 A. Leonard Jacob, 1,320 ft. S of No. 33-A, 160 ft. E line, W. H. Jacob Sur. No. 8.
Comp.; no report.
Motes & Bettingfield's No. 3 Lark, 660 ft. S of No. 1 and 330 ft. W line of lease.
S.D. 940 ft.
Stewart, Smith & Story's No. 2 Jacob, 660 ft. S of No. 1.
T.D. 867 ft.; completing; showing gas.

AGUA DULCE—NUECES COUNTY

United Gas Co.'s No. 2 M. F. Rivera, 330 ft. from E line, 330 ft. from N line of Rivers' 168-ac. tract.
Drlg. sandy shale at 4,765 ft.

SINTON—SAN PATRICIO COUNTY

Heep Oil Corp.'s No. 3 R. Welder, 466 ft. from S line, 2,000 ft. from E line of Adeline Welder tract in Victor Loupsey Sur.
Setting csg. 5,453 ft.
Humble O. & R. Co.'s No. 1 Welder, 2,400 ft. from N and E lines of 300-ac. lease.
Drlg. sand 3,977 ft.

ANGELITA—SAN PATRICIO COUNTY

Plymouth Oil Co.'s No. 2-B Welder, start at SW cor. of "B" lease, thence NW along the W line 2,100 ft., thence 350 ft. NE at R/A.
Drlg. 6,667 ft.

LOS OLMOS—STARR COUNTY

H. L. Curry's No. 1 Bass, 835 ft. E line, 2,522 ft. N line of Sur. 8, Por. 75-76-77.
Drlg. 695 ft.
J. P. Kennedy's No. 1 Kelsey-Bass, 200 ft. SE of No. 7 Kelsey-Bass in Blk. 7 of Porcions 75, 76 and 77.
Standing 710 ft.

BARBACOAS—STARR COUNTY

Merren, Johnson & Jeffries' No. 3 S.C.C.C., 330 ft. from S and E lines of Blk 37, Subd. of Porcion 89.
Abd. 2,846 ft.

SAXET—NUECES COUNTY

Southern Mineral Corp.'s No. 4 Ocher, 1200 ft. S line and 417 ft. E line of Ocher 202.52-ac. tract in Sec. 8.
Derrick.

WEST COLE POOL—WEBB COUNTY

American Liberty Oil Co.'s No. 8-A Bruni, 883 ft. NW line, 777 ft. SW line of Sur. 6, M. Arispe grant.
Location.
American Liberty Oil Co.'s No. 12-A Bruni, 260 ft. from SE line, 418 ft. from NE line of Blk. 44, Sur. 8.
T.D. 3,411 ft.; I.P. 20 bbls. per hr.
American Liberty Oil Co.'s No. 1-C Bruni.
Rigging up.
Herman Brown's No. 5 Bruni, 418 ft. from NE line, 260 ft. from SE line of Blk. 1, Sur. 5.
Abd. 4,050 ft.
CarolinaTexas O. & G. Trust, Inc.'s No. 11 S. Benavides, 150 ft. from S line, 600 ft. from W line, Blk. 12, Sur. 683.
Drlg. 3,343 ft.
Cole Pet. Co.'s No. 90 Bruni, 372 ft. from NE line, 330 ft. from SE line of Sur. 1.
Coring sand 3,407 ft.
Foster Barnsley's No. 6 Webster, 150 ft. E line, 510 ft. S line of NE SW Sur. No. 634.
Running tubing 3,053 ft.
O. W. Killam's No. 1 Bruni, 200 ft. N and W lines of Blk. 55.
No report.
O. W. Killam's No. 32 Bruni.
Rigging up.
O. W. Killam's No. 31 Bruni, 2,187 ft. SW line, 150 ft. SE line of Sur. 6.
Drlg. 3,000 ft.
Magnolia Pet. Co.'s No. 5 C. Benavides, 150 ft. from S and E lines of NE¼ of SE¼ of Sur. 661.
Drlg. 609 ft.
Magnolia Pet. Co.'s No. 7 S. Benavides, 330 ft. from SW and NW lines of Blk. 6, O'Hearn & Seacord Subd. Mesquite grant.
No report.
Highland Oil Co.'s (Pure) No. 2 Bruni, 330 ft. NW and NE lines of tract in Sur. 7.
Location.
Peerless-Seeligson et al's No. 1 Bruni, 330 ft. from NW and W lines, Arispe grant, Sur. No. 6.
Rigging up.
Sun Oil Co.'s No. 3 Bruni, 260 ft. SE line, 418 ft. NE line of Sur. 5.
T.D. 3,436 ft.; waiting on pump.
Sun Oil Co.'s No. 4 Bruni, 418 ft. NE line, 260 ft. SE line of Blk. 19, Sec. 5.
Drlg. 1,995 ft.
Sun Oil Co.'s No. 8 Bruni, 418 ft. from NE line, 200 ft. from SE line of Blk. 5, Sur. 5.
No report.

BYERSVILLE—WILLIAMSON COUNTY

R. R. Ogden's No. 1 Matteck, 150 ft. N and W lines of 103.5-ac. tract in White Sur.
Location.

CHAPMAN—WILLIAMSON COUNTY

G. L. Rowsey's No. 1 Lee Lawrence, 750 ft. from NW line, 900 ft. from SW line of 70.25-ac. tract, W. West Sur.
Abd. 1,765 ft.

GOPHER—ZAPATA COUNTY

O. W. Killam's No. 2 Bruni, 5,700 ft. from NW line, 2,615 ft. from NE line of Borrego grant.
Drlg. saturated sand at 345 ft.

JENNINGS—ZAPATA COUNTY

Texas Co.'s No. 63 Whitehead, 4,004 ft. from SE line, 19,919 ft. from SW line, Cerrito Blanco grant.
Drlg. 500 ft.

LOPENO—ZAPATA COUNTY

Norden & Morris' No. 1 Leon Ramirez, 660 ft. SE and NE lines of Blk. 4, Por. 29.
Spudded.
Venture Pet. Corp.'s No. 1 Ramirez et al, 2,120 ft. NE line, 603 ft. from SE line, Blk. 1, Porcion 26.
Coring 2,220 ft.

MARTINEZ—ZAPATA COUNTY

S. R. C.'s No. 7 Trevino, Blk. 12, Sur. 65.
No report.

MIRANDO VALLEY—ZAPATA COUNTY

Cliff Durks' No. 1 R. Hinnant, 200 ft. W line, 750 ft. S line of Blk. 16, Sur. 116.
Drlg. 1,900 ft.

Properties of Propane Creating New Interest in Expanding Its Uses

By W. N. LACEY and B. H. SAGE
California Institute of Technology*

There is no need to discuss the importance of propane in relation to the natural gasoline industry. However, any study of its properties should not only be useful directly but should also be of service to indicate the behavior which may be expected from other saturated hydrocarbons. Probably the most practical problems of the petroleum industry concern the behavior of mixtures of hydrocarbons, but before understanding the properties of mixtures we must know something of the individual constituents of those mixtures.

A study of some of the physical and thermodynamic properties of pure propane has been made by the staff of Research Project No. 37 of the American Petroleum Institute. The present paper is an attempt to present some of the results of this research in a form which may be of interest to men associated with production of natural gasoline and liquefied gases.

It will be necessary to discuss only very briefly the general principles of the methods used. A sample consisting of a known weight of propane was placed in a "variable-volume cell" maintained accurately at a constant predetermined temperature. The sample was then stirred or agitated until it had come to equilibrium; which is to say that it had no further tendency to change in properties so long as no change was made in the prevailing conditions. After attainment of equilibrium the volume occupied by the sample and the pressure were measured. Next the piston of mercury, which controlled the volume of the cell, was moved, the new state of equilibrium was established and corresponding values of volume and pressure were determined. Thus for a given temperature, a whole series of corresponding volume and pressure readings could be obtained from one sample of propane, values being obtained both on increasing and on decreasing pressure to be sure that true equilibrium was being reached.

The next step was to change the temperature and repeat the process. After making determinations at a sufficient number of temperatures and checking values with other samples, data were at hand to learn the pressure-volume-temperature relations from 70° F. to 220° F. and from atmospheric pressure to 3,000 pounds per square inch absolute. Three typical isotherms relating the specific volume (cubic feet per pound) of propane with the pressure are shown in Figure 1. The vertical portions of the curves for 70° F. and 190° F. represent that portion of a compression process when the gas is condensing at constant temperature and pressure. The portions above these sections correspond to isothermal compression of superheated propane gas, while those below and to the right show the compressibility of the liquid when under pressures greater than vapor pressure. Since 220° F. is above the critical temperature of propane, no condensation would be expected.

In dealing with gases, it is convenient to compare their behavior to that of the perfect or ideal gas whose specific volume varies inversely with the absolute pressure at a constant temperature. Often the behavior of a gas as compared to a perfect gas is expressed in terms of deviation factors. When the volume of a gas sample is measured at high pressure and it is desired to know what volume it would have at atmospheric pressure, the measured volume is multiplied by the ratio of the measured pressure in pounds per square inch absolute to 14.73 and also by the deviation factor corresponding to the measured pressure. The data from Figure 1 are shown in terms of such deviation factors in Figure 2, extending much farther out the pressure scale than one usually finds such values carried. These extended curves include values for the condensing gas and for the completely condensed material. The portion of these curves showing the deviations for the superheated gas, constituting only a small part of each near the origin, is that ordinarily found in deviation factor compilations. To show these parts of the curves in more detail, they have been transcribed to Figure 3 on a much enlarged scale. As will be seen from this figure, variation of temperature has a marked effect upon the extent of deviation of propane gas from the behavior predicted by the perfect gas laws. Furthermore, a "rich" gas such as propane gives a curved line, with deviation factors increasing more and more rapidly as the pressure approaches the value of the vapor pressure of the substance at the prevailing temperature.

Since liquid propane is stored and transported in pressure containers it is of interest to know the effect of change of temperature upon the volume of the liquid. Figure 4 shows the percentage expansion of liquid propane as a function of the temperature. The base from which expansions are measured in this figure is the volume of saturated liquid

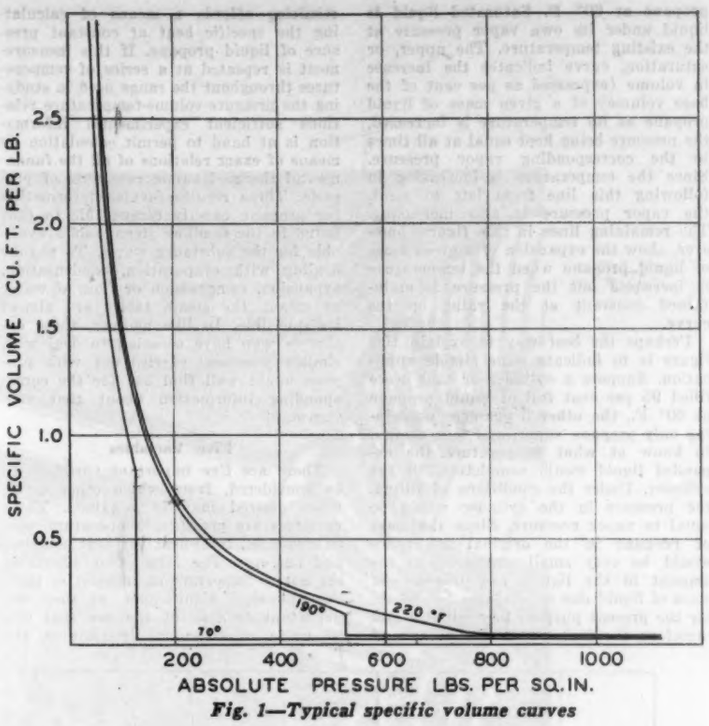

Fig. 1—Typical specific volume curves

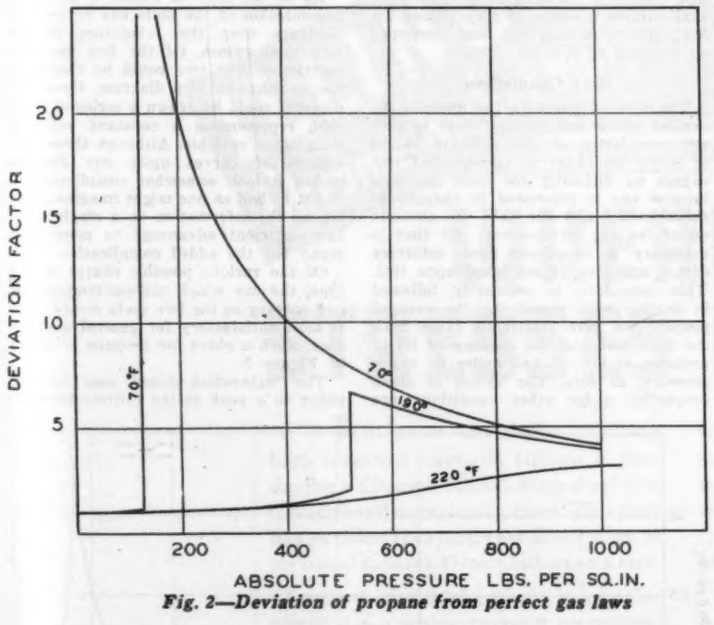

Fig. 2—Deviation of propane from perfect gas laws

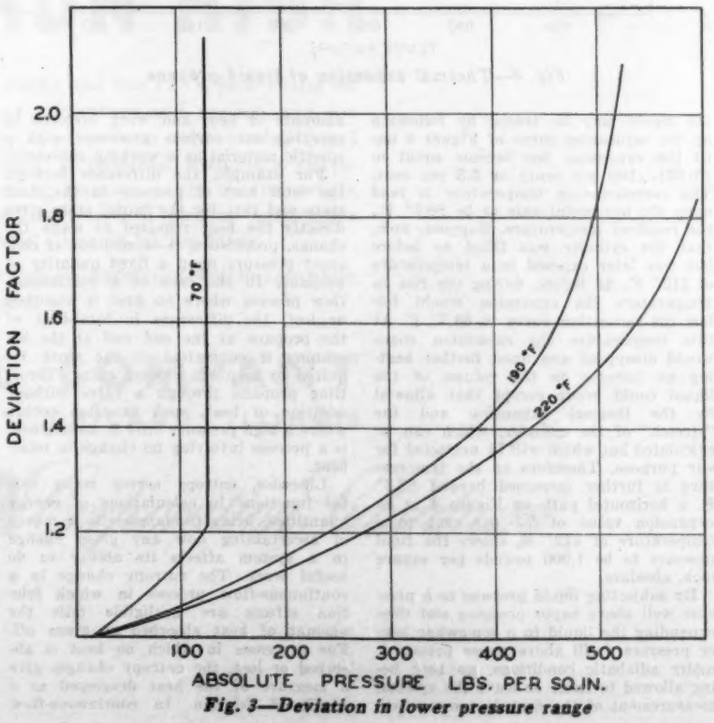

Fig. 3—Deviation in lower pressure range

*Delivered before California Natural Gasoline Association.

propane at 60° F. Saturated liquid is liquid under its own vapor pressure at the existing temperature. The upper, or saturation, curve indicates the increase in volume (expressed as per cent of the base volume) of a given mass of liquid propane as its temperature is increased, the pressure being kept equal at all times to the corresponding vapor pressure. Since the temperature is increasing in following this line from left to right, the vapor pressure is also increasing. The remaining lines in this figure, however, show the expansion of a given mass of liquid propane when the temperature is increased but the pressure is maintained constant at the value on the curve.

Perhaps the best way to explain this figure is to indicate some simple application. Suppose a cylinder or tank were filled 95 per cent full of liquid propane at 60° F., the other 5 per cent containing only propane vapor, and it is desired to know at what temperature the expanded liquid would completely fill the cylinder. Under the conditions of filling, the pressure in the cylinder would be equal to vapor pressure. Since the mass of propane in the original gas space would be very small compared to the amount in the liquid, any increase of mass of liquid due to condensation would for the present purpose be negligible and therefore the increase in the volume of the liquid may be traced by following up the saturation curve of Figure 4 until the expansion has become equal to (5/95) (100 per cent) or 5.3 per cent. The corresponding temperature is read upon the horizontal axis to be 88.3° F., the required temperature. Suppose, now, that the cylinder was filled as before but was later exposed to a temperature of 112° F. As before, during the rise in temperature the expansion would follow the saturation curve to 88.3° F. At this temperature the expansion space would disappear and upon further heating no increase in the volume of the liquid could occur except that allowed by the thermal expansion and the "stretch" of the cylinder, which can be calculated but which will be neglected for our purpose. Therefore as the temperature is further increased beyond 88.3° F. a horizontal path on Figure 4 at an expansion value of 5.3 per cent to a temperature of 112° F. shows the final pressure to be 1,000 pounds per square inch, absolute.

By subjecting liquid propane to a pressure well above vapor pressure and then expanding the liquid to a somewhat lower pressure (still above vapor pressure) under adiabatic conditions, no heat being allowed to enter or leave the system, measurement of the drop in temperature resulting affords a means of calculating the specific heat at constant pressure of liquid propane. If this measurement is repeated at a series of temperatures throughout the range used in studying the pressure-volume-temperature relations sufficient experimental information is at hand to permit calculation by means of exact relations of all the fundamental thermodynamic constants of propane. These results furnish information for propane exactly comparable to that found in the familiar steam tables available for the substance water. To anyone dealing with evaporation, condensation, expansion, compression or flow of water or steam, the steam tables are almost indispensible. In like manner, those engineers who have occasion to deal with similar processes carried out with propane might well find use for the corresponding information about that substance.

Five Variables

There are five important variables to be considered, from which other quantities desired may be obtained. These variables are pressure, temperature, specific volume, total-heat (or heat content) and entropy. The latter two quantities are not so important on account of their own physical significance as they are important because of the use that can be made of them in determining the amounts of heat and work involved in carrying out various processes with a specific material as a working substance.

For example, the difference between the total heat of propane in the final state and that for the initial state gives directly the heat required to make the change, provided it is carried out at constant pressure upon a fixed quantity of propane. In the case of a continuous-flow process where no heat is absorbed or lost, the difference in total-heat of the propane at the end and at the beginning is equivalent to the work required to keep the process going. Throttling propane through a valve without addition of heat, such as often occurs where a high pressure drop is maintained, is a process involving no change in total-heat.

Likewise, entropy serves many useful functions in calculations of energy quantities, being fundamentally a means of ascertaining how any given change in a system affects its ability to do useful work. The entropy change in a continuous-flow process in which friction effects are negligible tells the amount of heat absorbed or given off. For processes in which no heat is absorbed or lost, the entropy changes give a measure of the heat developed as a result of friction. In continuous-flow processes involving friction, the entropy and total-heat changes, used in conjunction, furnish a means of ascertaining the heat absorption and the heat developed as a result of friction.

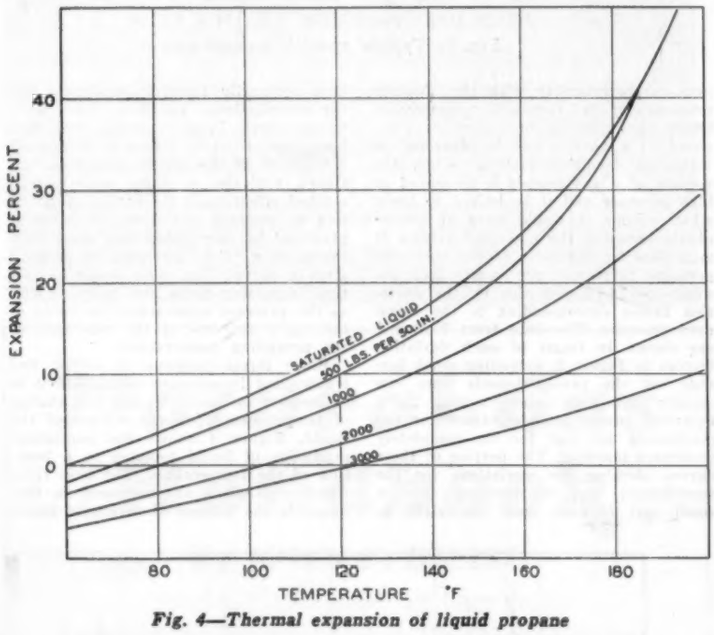

Fig. 4—Thermal expansion of liquid propane

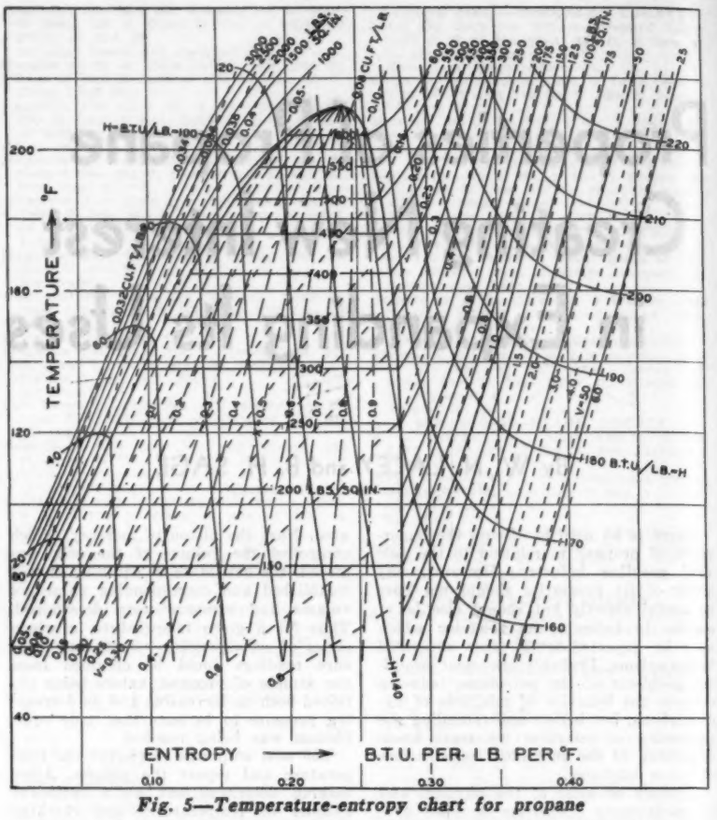

Fig. 5—Temperature-entropy chart for propane

Heat Calculations

The data obtained by the methods described above are not sufficient to permit calculation of the absolute values of either total-heat or entropy but this causes no difficulty for most purposes because one is interested in changes in these values and for this the absolute quantities are unnecessary. All that is necessary is to choose some arbitrary datum and give values based upon this. This procedure is ordinarily followed in dealing with steam. In the case of propane we have arbitrarily taken both the total-heat and the entropy of liquid propane, at 60° F. and under its vapor pressure, as zero. The values of these properties under other conditions are then given with reference to this base.

As in the case of steam, a graphical presentation of the facts has several advantages over the tabulation of the numerical values. Of the five variables mentioned, any two could be chosen as the co-ordinates of a diagram. Upon this diagram could be drawn a series of lines, each representing a constant value of some other variable. Although three such schools of curves upon one diagram makes it look somewhat complicated, it is not as bad as one might imagine. Having all the information on a single chart has sufficient advantage to more than repay for the added complication.

Of the various possible charts of this type, the one which utilizes temperature and entropy as the two main co-ordinates is most satisfactory for general convenience. Such a chart for propane is shown in Figure 5.

The "saturation dome" may be seen rising to a peak at the critical tempera-

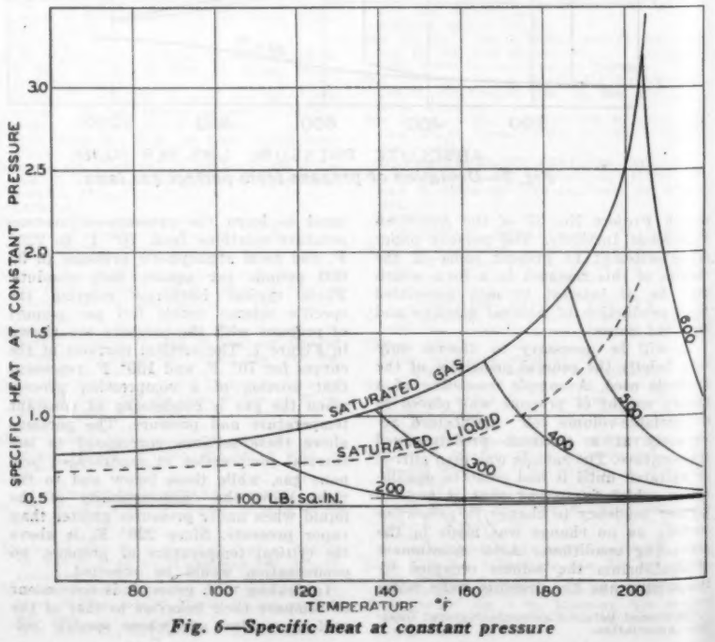

Fig. 6—Specific heat at constant pressure

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ture, approximately 212° F. The portion of this curve to the left of the critical point corresponds to liquid propane just at its vapor pressure (saturated liquid). The limb of the curve to the right of the critical point corresponds to propane gas just at vapor pressure (saturated gas). Any point within the dome represents propane under such conditions that both liquid and gas phases exist together. Any point to the left of the dome represents propane under pressure greater than the vapor pressure corresponding to its temperature. Under these conditions no gas phase can exist and only liquid will be present. To the right of the dome is the region representing the behavior of superheated propane gas, the pressure for any point in this region being lower than the saturation pressure for the temperature indicated by the location of the point.

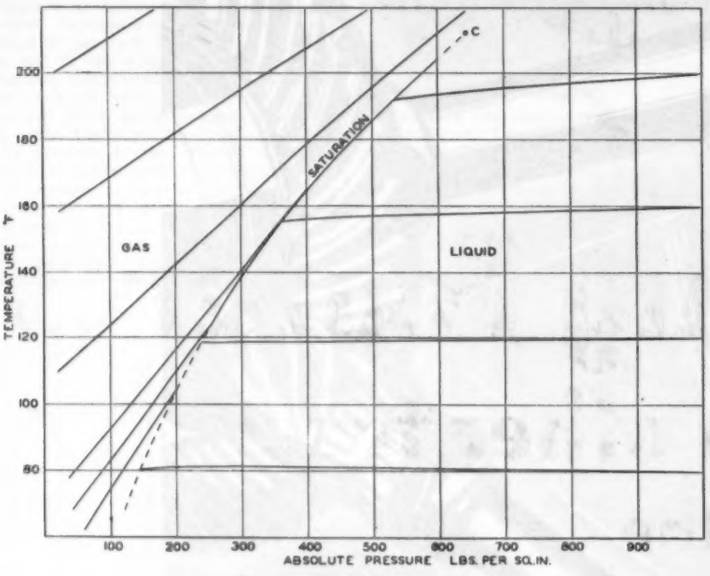


Fig. 7—Throttling curves

The nearly vertical solid lines which are labelled near the top of the figure are lines of constant pressure. Within the saturation dome these lines become horizontal, since a pure substance, such as propane, condenses or vaporizes at constant temperature and pressure. The short-dash lines are those of constant specific volume. It should be understood that when both liquid and gas phases are present (within the dome) these lines indicate the dome, meeting at the critical point, are lines of constant quality (constant fraction of the mass of propane present in the gaseous state). The solid lines which at most points slope downward to the right are lines of constant total-heat. If one is interested in values of these variables which do not fall upon one of the lines given, interpolation between them will serve to locate the position of the desired line.

As an illustration of the reading of this temperature-entropy diagram, let us assume that a sample of 10 pounds of propane is at a temperature of 80° F. is in a container having a 4.7 cubic feet. By following across the 80° F. horizontal line to a specific volume value of $4.7/10 = 0.47$ which would be located by interpolation between the lines given for specific volumes of 0.4 and 0.6 as labelled at the lower ends of the lines. Having located this point on the diagram, the values of the other three variables may be read off. The pressure would be 145 pounds per square inch absolute; the entropy, 0.18 B.t.u. per pound per degree Fahrenheit absolute; and the total-heat, 100 B.t.u. per pound.

It is often useful and convenient to construct auxiliary diagrams from the data furnished by Figure 5 or corresponding tabulated data. Such supplementary diagrams would be used to present limited portions of the information to be utilized for special purposes. A few such diagrams will be discussed for illustrative purposes.

Practical Application

Many industrial operations require the heating or cooling of a material under constant pressure conditions and it therefore becomes desirable to know the values for the specific heat at constant pressure for the substance in use. Figure 6 presents such information, obtainable from Figure 5, for gaseous propane. The steep curved line at the left gives the specific heat at constant pressure for saturated propane gas as a function of the temperature and indicates rapid changes therein. The other curves give similar information for superheated propane gas at a series of different pressures, each as a function of temperature. It will be seen that near saturation there is considerable change of specific heat with temperature and also with pressure. Under these conditions propane gas is far from being a perfect gas and such variations would be expected. However, as the temperature increases the curves tend to flatten out and come closer together at relatively low values.

When propane under pressure is throttled through a valve at which there is thereby produced a considerable pressure drop, the process takes place without change of total-heat and therefore can be easily followed upon the diagram of Figure 5. To illustrate what happens in such cases, another supplementary diagram has been constructed and is shown in Figure 7. On the right-hand side of the diagram, characterized by high pressure, is a series of lines showing the behavior of throttled liquid propane. Each of these representative lines shows the temperature change resulting from throttling from a specified critical pressure and temperature through a definite pressure interval. If for any given line the low pressure chosen lies to the left of the intersection of the liquid throttling curve with the saturation curve, part of the propane will vaporize during the process and the temperature will follow down the saturation curve. Incidentally, this saturation curve, the relation between equilibrium pressure and temperature, is nothing more than the vapor pressure curve for propane. The series of curves to the left of the saturation curve represents the behavor of propane gas on throttling. When these curves branch off from the saturation curve, the upstream condition is saturated gas at the vapor pressure corresponding to the point of intersection. The lines at the upper left-hand corner of the figure are for the throttling of superheated propane gas and so do not intersect the saturation curve.

One more of the types of auxiliary diagram obtainable from Figure 5 is shown in Figure 8. The upper curve shows the work required to conpress propane, from a pressure of 25 pounds per square inch absolute and a temperature of 60° F., through any desired pressure increase by an adiabatic compression process. High speed compressors bring about the change in pressure so rapidly that there is little time for heat transfer and the process therefore is nearly adiabatic. The other two curves of Figure 8 offer a comparison between the work necessary for adiabatic compression for chosen pressure increases, when starting from different initial pressures but the same initial temperature. It will be seen that the work requirement drops off as the initial pressure is increased; or conversely that, for a given input of work, one can expect a greater increase of pressure if the process starts at a higher initial pressure.

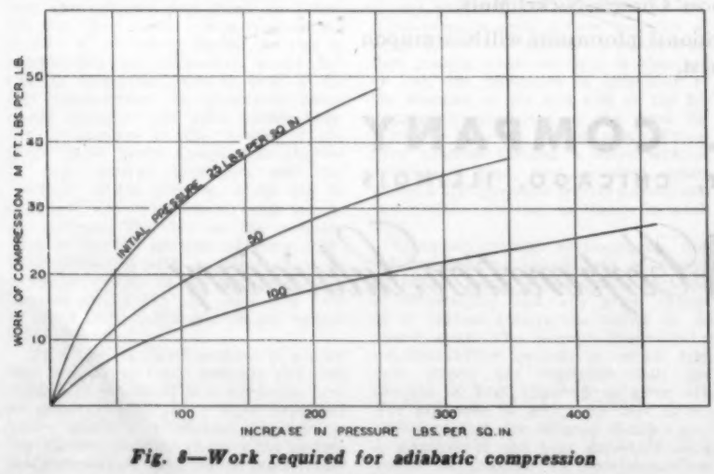
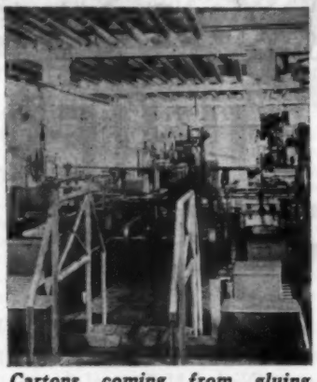


Fig. 8—Work required for adiabatic compression

Valvoline Oil Adds Canning and Boxing Equipment at Butler, Pa., Refinery

By W. W. GUITTEAU
Valvoline Oil Co.

The Valvoline Oil Co.'s refinery, located at Butler, Pa., has just completed the installation of an automatic canning machinery for packaging motor oils. The addition of modern canning equipment is part of the broad expansion program which included the addition of a Foster Wheeler unit.



Cartons coming from gluing machine

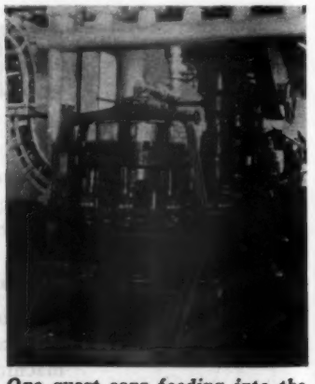
The 1-quart machine is timed to handle 106 cans per minute, while the 5-quart machine will fill and cap approximately 20 cans a minute. The cans are placed by hand on a runway located on the second floor of the building and descend by gravity to the filling machine where a revolving plate with projecting arms feeds them to the filling equipment. This filling equipment consists of a copper pan holding approximately 10 gallons of oil, which is filled from a 6-inch manifold located above the filling machine.

Under the copper pan there are six spouts and cylinders which revolve with the can; after the can has made a three-quarters circle under this pan, the contents of the cylinder have been emptied into the can which is then conveyed by another revolving plate to the capping machine.

The operation on the capping machine is similar to the filling operation in that the can again circles the machine; this time, however, on an individual pedestal which raises the can as it reaches the point where the lid is rolled on the can. The lid has been automatically placed on top of the can as the can enters the capping machine.

On leaving the capping machine, the cans drop on an endless conveyor which raises the cans to a runway where they roll downhill about 4 feet and then reverse themselves, separating into three tiers ready to be boxed.

At this point the second manual operation takes place. The operator places an empty carton over a boxlike arrangement at the end of the runway where the cans are assembling, and presses a lever with his foot which pushes twelve 1-quart cans into the carton; the lever is then released, allowing 12 more cans to assemble; the operator again presses the lever, filling the carton. The carton is then lowered to a conveyor which takes it to the gluing machine. This machine glues and closes the top and bottom lids of the carton, and then pushes them into a press which holds them for about three minutes, allowing the glue to dry. They are then sent to a faster moving conveyor which takes them either to the storage rooms, or direct to box cars on the siding.



One quart cans feeding into the filling machines. Capping machine in the background and manifold at top of picture

GMC

THE . TRUCK . OF . VALUE

47
Cost-Reducing Features
- far more than other trucks
in the
1½-2 ton field

HERE'S the many-feature quality truck. Here's the truck that thousands of the country's shrewdest business men are selecting for a number of very definite, very practical reasons.

Seasoned truck buyers know that initial price is but a small part of truck cost—that operating and upkeep costs are far more important in judging truck value. The truck that does more work at lower cost, that requires less upkeep and that outlasts is naturally the one they want.

Consider the many features of this GMC 1½-2 ton truck and you will realize why it out-performs and out-earns. On 47 counts—every one of them important and 10 of them exclusive—the GMC *is a more pronounced value.* It excels with latest type Lockheed hydraulic brakes, economical centrifuse brake drums, unusually large brake linings, greater horsepower, greater sustained torque, and full-floating axle with straddle-mounted pinion, to cite but a few of its superiorities.

Small wonder the General Motors Truck Company, the world's largest manufacturer of commercial vehicles exclusively, offers it as the truck of value, the truck that returns to the owner far more in work done and profits earned.

See this 1½-2 ton worker and earner. Judge its value in your own sound way. Or if your hauling needs call for trucks or trailers of greater capacity, look first to the modern General Motors Truck line for downright value. Capacities range from 1½ to 22 tons.

Revolutionary Dual-Performance Axle in 2-3 ton GMC

This new advanced truck feature provides a high-high gear (5.14 to 1) for fast movement on the level at economical engine speed and a low-high gear (7.15 to 1) which assures improved performance with heavy loads on hills or where the going is hard.

A TYPICAL VALUE FACT

One of the exclusive quality features of the GMC 1½-2 ton truck that reflects itself in more work done and more profit earned is Greater Payload Capacity. *Compared with one leading competitive truck, for instance, it has 10½% more, compared with another 15% and compared with still another 36%. And remember that this is but one of 47 important advantages.*

GENERAL MOTORS TRUCKS & TRAILERS
1½-22 TONS

GENERAL MOTORS TRUCK CO. Time Payments Available Through Our Own Y.M.A.C. PONTIAC, MICHIGAN

Summary of Operations in All Fields for January, 1935

SUMMARY OF ALL FIELDS

Wells Completed in January

	Comp.	Prod.	Dry	Gas
Penn. Grade Fields	187	488	22	27
Lima	13	75	1	2
Central Ohio	70	218	18	36
Indiana	3	0	1	2
Illinois	3	4	2	0
Kentucky	23	433	8	2
Michigan	21	947	8	3
Kansas	75	49,975	17	0
Oklahoma	127	33,997	47	12
North Central Texas	170	8,259	76	4
West Texas	62	17,921	16	0
Texas Panhandle	51	13,702	4	4
East Central Texas	22	307	15	1
East Texas	328	16,251	7	0
Southwest Texas	97	9,721	46	13
Gulf Coast, Texas	69	26,784	20	5
Gulf Coast, Louisiana	36	12,680	19	0
North Louisiana	21	455	9	6
Arkansas	18	805	6	1
Mississippi	1	0	1	0
Montana	8	224	6	0
Wyoming	3	540	1	0
Colorado	2	2,160	1	0
New Mexico	16	14,331	7	1
Utah	1	0	0	1
Florida	1	0	1	0
Total January	1,428	210,287	358	120
Total December	1,466	251,842	344	122
Difference	38	41,555	14	2

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Penn. Grade Fields	50	165	215
Lima	5	31	36
Central Ohio	37	112	139
Indiana	1	50	51
Illinois	0	13	13
Kentucky	3	22	25
Michigan	133	129	262
Kansas	52	208	260
Oklahoma	97	459	556
North Central Texas	63	214	277
West Texas	52	171	223
Texas Panhandle	32	121	153
East Central Texas	11	49	60
East Texas	112	164	276
East Texas Gas Area	2	14	16
Southwest Texas	38	82	120
Gulf Coast, Texas	34	121	155
Gulf Coast, Louisiana	19	82	101
North Louisian	36	54	90
Arkansas	15	44	59
Mississippi	1	12	13
Alabama	1	4	5
Montana	8	37	45
Wyoming	6	67	73
Colorado	3	28	31
New Mexico	16	87	103
Utah	1	13	14
Florida	1	0	1
Total January	819	2,553	3,372
Total December	783	2,597	3,380
Difference	36	44	8

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Pontotoc	14	15,058	0	1
Osage	19	3,425	7	2
Noble	2	3,612	0	0
Lincoln	2	420	1	0
McIntosh	1	0	0	1
Muskogee	2	0	1	1
Pittsburg	1	0	0	1
Logan	2	325	1	0
Hughes	6	27	4	1
Oklahoma	5	842	1	1
Okfuskee	6	48	2	0
Seminole	10	6,941	4	0
Pottawatomie	9	2,695	3	0
Creek	8	283	4	0
Okmulgee	6	135	3	0
Kay	2	0	2	0
Carter	10	371	4	0
Comanche	1	0	1	0
Stephens	5	100	1	1
Jefferson	5	30	3	1
Murray	1	0	1	0
Jackson	2	245	0	1
Marshall	7	50	3	1
Atoka	1	0	1	0
Total January	127	33,997	47	12
Total December	160	42,512	51	9
Difference	33	8,515	4	3

Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Murray	0	5	5
Coal	0	2	2
Atoka	0	11	11
Carter	1	14	15
Stephens	4	18	22
Jackson	1	14	15
Jefferson	0	10	10
Marshall	0	10	10
Love	1	1	1
Choctaw	0	2	2
Bryan	0	1	1
Pontotoc	11	58	69
Garvin	1	2	3
Comanche	3	8	11
Grady	0	3	3
Pottawatomie	6	39	45
Pittsburg	1	2	3
Leflore	0	1	1
Caddo	1	6	7
Seminole	4	32	36
Hughes	4	8	12
Kiowa	0	1	1
Greer	0	1	1
Beckham	0	4	4
Washita	0	1	1
Okfuskee	2	15	17
Cleveland	1	1	2
Oklahoma	12	20	32
Okmulgee	2	21	23
McIntosh	0	4	4
Canadian	1	0	1
Lincoln	5	7	12
Creek	6	35	41
Muskogee	0	4	4
Logan	2	15	17
Blaine	0	1	1
Payne	0	3	3
Tulsa	0	5	5
Wagoner	0	1	1
Kingfisher	0	1	1
Pawnee	0	4	4
Osage	25	47	72
Noble	2	14	16
Ellis	0	1	1
Garfield	0	4	4
Alfalfa	0	2	2
Texas	0	1	1
Grant	1	0	1
Total January	97	459	556
Total December	85	461	546
Difference	12	2	10

Kansas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Reno	19	26,028	3	0
McPherson	11	2,861	2	0
Rice	11	9,668	1	0
Russell	10	6,697	1	0
Trego	3	882	2	0
Sedgwick	5	2,259	5	0
Elk	1	6	0	0
Butler	1	0	1	0
Cowley	2	78	1	0
Greenwood	3	145	0	0
Sumner	1	424	0	0
Barton	2	795	0	0
Rush	1	0	1	0
Kingman	1	132	0	0
Total January	75	49,975	17	0
Total December	73	42,144	13	4
Difference	2	7,831	4	4

Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Rooks	0	1	1
Russell	16	35	51
Trego	1	3	4
Ellis	0	1	1
Saline	0	1	1
Dickinson	1	0	1
Barton	3	4	7
Ellsworth	7	9	16
Rush	0	4	4
Marion	0	1	1
McPherson	3	24	27
Rice	7	28	35
Ness	0	1	1
Scott	0	1	1
Harvey	0	10	10
Reno	10	37	47
Stafford	0	2	2
Butler	1	9	10
Sedgwick	1	15	16
Greenwood	0	1	1
Kingman	1	2	3
Pratt	0	1	1
Butler	0	3	3
Sumner	0	5	5
Barber	0	1	1
Cowley	0	3	3
Elk	1	6	7
Total January	52	208	260
Total December	37	197	234
Difference	15	11	26

West Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Andrews	9	137	0	0
Coke	1	0	1	0
Ector	4	1,894	0	0
Edwards	2	0	2	0
Fisher	2	73	1	0
Glasscock	4	397	2	0
Howard	9	1,362	2	0
Irion	1	0	1	0
Jones	2	0	2	0
Loving	1	208	0	0
Pecos	9	7,110	1	0
Runnels	3	180	1	0
Schleicher	1	0	1	0
Upton	3	1,465	0	0
Ward	12	4,191	1	0
Winkler	4	854	0	0
Total Jan.	62	17,921	16	0
Total Dec.	64	20,169	15	0
Difference	2	2,248	1	0

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Dig.	Ttl.
Andrews	1	0	5	6
Brewster	1	2	1	4
Cochran	1	1	0	2
Crane	1	2	4	7
Crockett	1	1	1	3
Culberson	0	3	1	4
Dawson	0	1	0	1
Ector	6	3	14	23
El Paso	0	1	0	1
Fisher	0	1	5	6
Glasscock	1	3	2	6
Howard	5	5	15	25
Jeff Davis	0	1	0	1
Jones	0	4	6	10
Loving	1	2	0	3
Lynn	0	1	0	1
Martin	0	1	0	1
Mitchell	0	1	1	2
Pecos	2	6	3	11
Presidio	0	1	0	1
Reagan	0	0	3	3
Reeves	1	1	0	2
Runnels	2	4	1	7
Schleicher	0	2	0	2
Scurry	0	1	1	2
Sterling	0	0	1	1
Stonewall	0	0	1	1
Sutton	0	0	1	1
Taylor	0	0	2	2
Terrell	0	1	0	1
Upton	4	3	5	12
Ward	19	14	17	50
Winkler	6	2	13	21
Total Jan.	52	68	103	223
Total Dec.	50	66	99	215
Difference	2	2	4	8

North Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Archer	61	3,521	19	0
Brown	4	0	3	1
Callahan	2	0	2	0
Clay	1	0	1	0
Coleman	5	0	5	0
Comanche	1	0	1	0
Cooke	2	910	0	0
Eastland	2	50	1	0
Haskell	1	0	1	0
Jack	2	5	1	0
Knox	1	0	1	0
McCulloch	1	25	0	0
Montague	5	1,015	1	0
Palo Pinto	2	15	2	0
Shackelford	13	210	6	1
Stephens	1	0	1	0
Throckmorton	7	101	4	2
Wichita	31	169	17	0
Wilbarger	3	182	0	0
Young	25	2,056	10	0
Total Jan.	170	8,259	76	4
Total Dec.	198	14,058	80	3
Difference	28	5,799	4	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Dig.	Ttl.
Archer	18	7	42	67
Baylor	0	1	0	1
Brown	0	5	6	11
Callahan	1	2	3	6
Clay	0	1	0	1
Coleman	0	2	4	6
Comanche	0	0	2	2
Cooke	2	2	7	11
Denton	0	1	0	1
Eastland	3	2	6	11
Erath	0	1	1	2
Foard	0	1	1	2
Hardeman	0	2	1	3
Hamilton	0	0	1	1
Jack	3	2	7	12
Lampasas	0	1	0	1
McCulloch	0	0	2	2
Mills	0	1	1	2
Montague	5	5	1	11
Palo Pinto	0	1	5	6
Parker	1	1	1	3
Shackelford	4	3	11	18
Stephens	0	3	2	5
Tarrant	0	1	0	1
Throckmorton	1	3	2	6
Wichita	2	1	18	21
Wilbarger	3	4	1	8
Wise	2	2	0	4
Young	18	6	28	52
Total Jan.	63	61	153	277
Total Dec.	64	57	143	264
Difference	1	4	10	13

Texas Panhandle

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	3	705	0	0
Childress	1	0	1	0
Gray	25	6,612	1	0
Hutchinson	8	1,866	2	0
Moore	4	1,900	0	3
Wheeler	10	2,619	0	1
Total Jan.	51	13,702	4	4
Total Dec.	28	6,848	0	2
Difference	23	6,854	4	2

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Dig.	Ttl.
Carson	0	0	7	7
Childress	1	0	1	2
Collingsworth	0	0	1	1
Cottle	1	0	0	1
Dallam	0	1	0	1
Deaf Smith	0	1	0	1
Gray	15	3	42	60
Hutchinson	6	1	23	30
Moore	2	0	2	4
Ochiltree	1	0	0	1
Potter	0	0	1	1
Randall	0	0	1	1
Roberts	0	1	1	2
Wheeler	6	13	23	41
Total Jan.	32	19	102	153
Total Dec.	26	15	108	149
Difference	6	4	6	4

East Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Anderson	6	105	3	1
Cherokee	2	0	2	0
Gregg	141	7,718	1	0
Harrison	1	0	1	0
Hunt	3	0	3	0
Kaufman	1	0	1	0
Leon	1	0	1	0
Limestone	2	0	2	0
Rains	1	0	1	0
Rusk	142	6,993	1	0
Smith	24	914	2	0
Upshur	19	626	2	0
Van Zandt	7	202	2	0
Total January	350	16,558	22	1
Total December	289	16,914	8	0
Difference	61	356	14	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Anderson	2	0	4	6
Bowie	1	0	0	1
Cherokee	1	4	1	6
Ellis	0	1	0	1
Falls	0	2	0	2
Freestone	1	1	1	3
Gregg	54	5	56	115
Harrison	0	1	2	3
Henderson	0	2	0	2
Hill	0	0	1	1
Hunt	1	1	0	2
Kaufman	0	2	1	3
Limestone	1	4	2	7
Morris	0	1	0	1
Nacogdoches	0	2	0	2
Navarro	1	5	0	6
Rains	0	1	0	1
Red River	1	1	0	2
Rusk	35	8	55	98
Smith	13	2	20	36
Upshur	9	2	10	21
Van Zandt	3	8	6	17
Total January	123	54	159	336
Total December	126	31	167	324
Difference	3	23	8	12

Southwest Texas Fields

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Agua Dulce	1	75	0	0	0	0	0
Alta Mesa	0	0	0	0	0	2	2
Arroyo Grande	0	0	0	0	0	1	1
Barbacoas	0	0	0	0	0	1	1
Blas Uribe	0	0	0	0	0	1	1
Byersville	3	153	1	0	0	0	0
Caesar	2	1,150	0	0	1	0	1
Cedar Creek	1	0	1	0	0	0	0
West Cole	8	3,240	1	2	1	5	6
North Dale	1	0	1	0	0	2	2
Darst Creek	1	0	1	0	0	0	0
Dunlap	1	0	1	0	0	0	0
Sam Fordyce	13	2,052	3	2	5	2	7
Govt. Wells	11	1,285	4	0	4	1	5
Hoffman	1	0	1	0	0	0	0
Jacobs	2	75	1	0	2	1	3
Jennings	1	10	0	0	0	0	0
Los Olmos	0	0	0	0	0	1	1
Lopena	1	0	0	1	0	0	0
Lucas	0	0	0	0	0	1	1
Marbach	0	0	0	0	0	1	1
Martinez	2	0	0	2	0	0	0
McNeil	1	0	0	1	0	0	0
North Pettus	1	0	1	0	0	0	0
Rio Grande City	1	0	1	0	0	0	0
Sandia	1	0	1	0	1	0	1
Seeligson	0	0	0	0	0	2	2
Sinton	0	0	0	0	1	2	3
West Tuleta	8	1,507	1	0	5	2	7
Von Ormy	2	6	0	0	0	0	0
Miscellaneous	34	168	27	5	18	57	75
Ttl. Jan.	97	9,721	46	13	38	82	120
Ttl. Dec.	125	15,456	64	10	45	99	144
Difference	28	5,735	18	3	7	17	24

Gulf Coast Fields

LOUISIANA GULF COAST

	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Bay St. Elaine	0	0	0	0	0	2	2
Black Bayou	1	0	1	0	1	2	3
Bosco	3	574	1	0	3	3	6
Cam. Meadows	1	600	0	0	1	2	3
Darrow	0	0	0	0	0	1	1
Dog Lake	0	0	0	0	0	1	1
Edgerly	1	50	0	0	0	2	2
Gillis	0	0	0	0	1	6	7
Gueydan	0	0	0	0	0	1	1
Hackberry	2	1,265	0	0	1	6	7
Iowa	4	3,876	1	0	2	2	4
Jennings	0	0	0	0	0	3	3
Lake Barre	4	1,760	3	0	0	1	1
L. H'mit'ge	1	0	1	0	0	0	0
L. W'sh'g'n.	0	0	0	0	0	1	1
Leesville	3	1,926	1	0	1	5	6
Lockport	0	0	0	0	0	4	4
New Iberia	2	0	2	0	0	2	2
Port Barre	1	1,500	0	0	0	1	1
Roanoke	1	1,500	0	0	0	5	5
Sorrento	1	0	1	0	0	0	0
Starks	1	100	0	0	0	0	0
Sulphur	1	0	1	0	0	3	3
Sweet Lake	0	0	0	0	0	1	1
Vinton	2	40	1	0	0	3	3
W. Castle	1	489	0	0	0	1	1
Miscellaneous	6	0	6	0	8	19	27
Ttl. Jan.	36	13,860	19	0	19	63	101
Ttl. Dec.	36	19,258	8	1	29	68	97
Difference	0	6,398	13	1	10	14	4

TEXAS

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Arriola	0	0	0	0	0	1	1
Barbers Hill	5	1,723	0	0	3	11	14
Batson	2	300	0	0	0	1	1
Big Creek	0	0	0	0	0	1	1
Blue Ridge	1	400	0	0	0	2	2
Boling	0	0	0	0	1	3	4
Buckeye	0	0	0	0	0	1	1
Clay Creek	1	29	0	0	0	1	1
Cleveland	1	0	1	0	0	2	2

Quick Wire Line Deliveries

by

The Continental Supply Co.

Mid-Continent Distributors for Broderick & Bascom, with well stocked stores in all active fields.

And Such Lines!

Yellow Strand!

Made of *tested, selected* wire to secure the fine balance of elasticity, flexibility and toughness so ncessary for long life!

Made by a company with 59 years' experience making nothing but wire rope!

No wonder Yellow Strand lines have such an excellent reputation in the oil country.

NRA MEMBER U.S. WE DO OUR PART

Broderick & Bascom Rope Co.

Factories: St. Louis—Seattle.

R-8

Yellow Strand Rotary Drilling Lines

Coleto Creek	1	50	0	0	2	1	3
Conroe	2	780	0	0	0	3	3
Damon Md.	1	850	0	0	0	2	2
Danbury	0	0	0	0	0	2	2
Dickinson	0	0	0	0	1	2	3
Esperson	1	816	0	0	1	2	3
Goose Creek	0	0	0	0	0	1	1
Greta	1	720	0	0	2	0	2
Hankamer	1	120	0	0	0	1	1
Hastings	0	0	0	0	0	2	2
High Island	0	0	0	0	1	4	5
Hull	0	0	0	0	1	3	4
Humble	4	30	3	0	0	2	2
Kittrell	2	142	1	0	2	1	3
Livingston	2	388	0	0	0	3	3
Louise	0	0	0	0	0	3	3
Manvel	9	2,404	2	2	4	3	7
McFaddin-O'Connor	1	0	1	0	0	0	0
Mykawa	1	0	1	0	1	1	2
Orchard	0	0	0	0	0	1	1
Pierce Jnctn.	1	500	0	0	0	3	3
Port Neches	1	672	0	0	0	3	3
Raccoon Bend	2	3,120	0	0	0	4	4
Refugio	1	220	0	0	0	5	5
San Felipe	1	0	1	0	0	0	0
Saratoga	1	75	0	0	0	1	1
Splendora	1	0	1	0	0	0	0
Sour Lake	1	57	0	0	0	3	3
Spindletop	1	0	1	0	0	0	0
Thompson	5	5,104	1	0	0	2	2
Tomball	11	8,784	0	3	2	6	8
Vanderbilt	0	0	0	0	2	0	2
Miscellaneous	7	0	7	0	11	34	45
Ttl. Jan.	89	26,784	20	5	34	121	155
Ttl. Dec.	83	22,980	33	5	32	97	129
Difference	14	3,804	13	0	2	24	26

East Texas Border Counties

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Cass	0	0	0	0	1	0	1
Harrison	0	0	0	0	0	2	2
Marion	0	0	0	0	0	2	2
Panola	0	0	0	0	1	6	7
Shelby	0	0	0	0	0	4	4
Total Jan.	0	0	0	0	2	14	16
Total Dec.	2	0	2	0	2	13	15
Difference	2	0	2	0	0	1	1

Arkansas Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rigs	Dlg.	Ttl.
Arkansas	0	0	0	0	0	1	1
Ashley	0	0	0	0	1	0	1
Calhoun	1	0	1	0	0	0	0
Hempstead	0	0	0	0	0	1	1
Lafayette	2	35	1	0	2	1	3
Little River	0	0	0	0	0	2	2
Lonoke	0	0	0	0	0	1	1
Miller	1	250	0	0	4	8	12
Nevada	1	10	0	0	1	0	1
Ouachita	2	50	1	0	1	5	6
Poinsett	0	0	0	0	0	1	1
St. Francis	0	0	0	0	0	1	1
Union	9	460	3	1	5	22	27
Woodruff	0	0	0	0	1	1	2
Total Jan.	16	805	6	1	15	44	59
Total Dec.	13	4,692	7	0	9	52	61
Difference	3	3,887	1	1	6	8	2

*Gas production: Union, 10,000,000 cu. ft.

Louisiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rigs	Dlg.	Ttl.
Avoyelles	1	0	1	0	1	1	2
Bienville	0	0	0	0	0	2	2
Bossier	1	0	0	1	4	4	8
Caddo	8	330	2	2	9	11	20
Catahoula	0	0	0	0	0	1	1
Claiborne	1	0	1	0	2	0	2
De Soto	0	0	0	0	3	9	12
East Carroll	0	0	0	0	0	1	1
Grant	1	0	1	0	0	0	0
La Salle	1	100	0	0	0	3	3
Natchitoches	2	0	2	0	0	3	3
Ouachita	1	0	0	1	1	1	2
Rapides	0	0	0	0	2	0	2
Red River	1	25	0	0	1	2	3
Sabine	3	0	2	0	10	14	24
Tensas	0	0	0	0	0	1	1
Union	2	0	0	2	1	1	2
Webster	0	0	0	0	2	0	2
Total Jan.	21	455	9	6	26	54	90
Total Dec.	30	235	12	10	24	64	88
Difference	11	220	3	4	12	10	2

*Gas production: Bossier, 64,000,000; Caddo, 750,000; Ouachita, 1,500,000; Union, 14,000,000; total, 80,250,000 feet.

Mississippi Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Amite	0	0	0	0	0	1	1
Bolivar	0	0	0	0	0	1	1
Clarke	0	0	0	0	0	1	1
Harrison	0	0	0	0	0	1	1
Issequena	0	0	0	0	0	1	1
Jones	0	0	0	0	0	1	1
Lauderdale	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	2	2
Scott	0	0	0	0	0	1	1
Simpson	1	0	1	0	1	0	1
Washington	0	0	0	0	0	1	1
Winston	0	0	0	0	0	1	1
Total Jan.	1	0	1	0	1	12	13
Total Dec.	2	0	1	1	1	12	13
Difference	1	0	0	1	0	0	0

Alabama Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Conecuh	0	0	0	0	0	1	1
Covington	0	0	0	0	0	1	1
Houston	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Pike	0	0	0	0	1	0	1
Total Jan.	0	0	0	0	1	4	5
Total Dec.	0	0	0	0	1	4	5
Difference	0	0	0	0	0	0	0

Florida

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Walton	1	0	1	0	1	0	1

Rocky Mountain Area

NEW MEXICO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Chaves	0	0	0	0	0	2	2
Eddy	4	0	3	1	1	7	8
Guadalupe	1	0	1	0	1	0	1
Lea	11	14,231	3	0	10	42	52
McKinley	0	0	0	0	1	4	5
San Juan	0	0	0	0	1	15	16
San Miguel	0	0	0	0	0	7	7
Santa Fe	0	0	0	0	0	2	2
Valencia	0	0	0	0	1	2	3
Miscellaneous	0	0	0	0	1	5	6
Total Jan.	16	14,231	7	1	16	87	103
Total Dec.	21	38,181	4	0	16	86	102
Difference	5	23,850	3	1	0	1	1

COLORADO

Summary of Field Operations

Coun.y—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Adams	0	0	0	0	1	0	1
Archuleta	0	0	0	0	0	3	3
Fremont	1	0	1	0	0	0	0
Grand	0	0	0	0	0	2	2
Huerfano	0	0	0	0	0	3	3
Jackson	0	0	0	0	0	2	2
Larimer	0	0	0	0	0	3	3
Moffat	1	2,160	0	0	2	0	2
Miscellaneous	0	0	0	0	0	10	10
Total Jan.	2	2,160	1	0	3	23	31
Total Dec.	2	20	1	1	3	25	28
Difference	2	2,140	0	1	0	2	3

WYOMING

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Big Horn	1	2	0	0	2	6	8
Carbon	0	0	0	0	0	7	7
Converse	0	0	0	0	0	6	6
Crook	0	0	0	0	0	7	7
Fremont	0	0	0	0	0	6	6
Hot Springs	1	538	0	0	0	0	0
Lincoln	0	0	0	0	0	4	4
Niobrara	0	0	0	0	0	4	4
Park	0	0	0	0	0	2	2
Sweetwater	0	0	0	0	0	3	3
Sublet	0	0	0	0	0	3	3
Uinta	0	0	0	0	0	6	6
Weston	1	0	1	0	0	2	2
Miscellaneous	0	0	0	0	0	7	7
Total Jan.	3	540	1	0	0	67	73
Total Dec.	10	405	0	1	7	69	76
Difference	7	135	1	1	1	2	3

MONTANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Big Horn	1	0	1	0	0	0	0
Carbon	0	0	0	0	0	2	2
Cascade	1	0	1	0	0	2	2
Fergus	0	0	0	0	0	3	3
Glacier	3	224	0	0	7	11	18
Liberty	1	0	1	0	0	3	3
Petroleum	1	0	1	0	0	0	0
Toole	1	0	1	0	1	9	10
Miscellaneous	0	0	0	0	0	7	7
Total Jan.	8	224	5	0	8	37	45
Total Dec.	13	1,358	0	1	10	43	53
Difference	5	1,134	5	1	2	6	8

UTAH

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Emery	1	0	0	1	0	0	0
Miscellaneous	0	0	0	0	1	13	14
Total Jan.	1	0	0	1	1	13	14
Total Dec.	0	0	0	0	1	14	15
Difference	1	0	0	1	0	1	1

Eastern Fields

Summary of Completed Work

Fields—	Comp.	Prod.	Dry	Gas
Bradford	*103	184	0	0
Allegany	2	2	0	0
Venango-Clarion	6	9	1	0
Butler-Armstrong	3	4	0	1
S.W. Pennsylvania	9	30	4	3
S.E. Ohio	35	190	10	6
West Virginia	29	79	7	17
Total January	187	488	22	27
Total December	207	862	17	41
Difference	20	374	5	14

*Includes 28 pressure wells.

Summary of Work Under Way

Field—	Rigs	Drlg.	Ttl.
Bradford	12	43	55
Allegany	1	0	1
Venango-Clarion	2	5	7
Butler-Armstrong	1	5	6
S.W. Pennsylvania	5	13	18
S.E. Ohio	13	29	42
West Virginia	16	70	86
Total January	50	165	215
Total December	52	190	242
Difference	2	25	27

Lima Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	1	3	0	0	0	3	3
Henry	0	0	0	0	0	2	2
Allen	2	48	0	0	0	3	3
Auglaize	0	0	0	0	1	3	4
Hardin	0	0	0	0	1	0	1
Van Wert	1	2	0	0	0	2	2
Darke	0	0	0	0	0	2	2
Shelby	3	7	1	0	0	1	1
Sandusky	0	0	0	0	0	2	2
Ottawa	0	0	0	0	0	1	1
Seneca	1	0	0	1	0	4	4
Logan	1	0	0	1	0	0	0
Wyandot	3	15	0	0	3	6	9
Marion	0	0	0	0	0	1	1
Total Jan.	13	75	1	2	5	31	36
Total Dec.	2	5	1	0	3	35	38
Difference	11	70	0	2	2	4	2

Indiana Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Gibson	1	0	1	0	1	3	4
Sullivan	1	0	0	1	0	2	2
Pike	0	0	0	0	0	3	3
Daviess	1	0	0	1	0	4	4
Warrick	0	0	0	0	0	3	3
Spencer	0	0	0	0	0	1	1
Harrison	0	0	0	0	0	1	1
Porter	0	0	0	0	0	2	2
Henry	0	0	0	0	0	2	2
Shelby	0	0	0	0	0	1	1
Hancock	0	0	0	0	0	1	1
Lawrence	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Jay	0	0	0	0	0	3	3
St. Joe	0	0	0	0	0	1	1
Greene	0	0	0	0	0	1	1
Perry	0	0	0	0	0	3	3
Knox	0	0	0	0	0	4	4
Dubois	0	0	0	0	0	1	1
Posey	0	0	0	0	0	1	1
Washington	0	0	0	0	0	1	1
Newton	0	0	0	0	0	1	1
Martin	0	0	0	0	0	1	1
Vanderburg	0	0	0	0	0	8	8
Total Jan.	3	0	1	2	1	50	51
Total Dec.	12	200	4	4	1	58	59
Difference	9	200	3	2	0	8	8

Illinois Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Clark	3	4	2	0	0	3	3
Crawford	0	0	0	0	0	6	6
Marion	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Lawrence	0	0	0	0	0	0	0
St. Clair	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Total Jan.	3	4	2	0	0	13	13
Total Dec.	0	0	0	0	0	20	20
Difference	4	4	0	0	0	7	7

Kentucky Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ohio	15	108	8	1	1	6	7
Hancock	8	335	0	1	2	12	14
McLean	0	0	0	0	0	1	1
Allen	0	0	0	0	0	3	3
Total Jan.	23	443	8	2	3	22	25
Total Dec.	12	405	2	0	0	20	20
Difference	11	38	6	2	3	2	5

Central Ohio Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ashland	1	4	0	0	1	0	1
Medina	11	18	2	6	2	5	7
Holmes	2	0	1	1	5	1	6
Cuyahoga	1	0	0	1	0	0	0
Lorain	3	5	2	0	0	5	5
Richland	0	0	0	0	0	3	3
Wayne	2	0	2	0	0	3	3
Summitt	1	0	0	1	1	3	4
Fairfield	1	0	0	1	2	2	4
Knox	6	1	4	1	1	5	6
Coshocton	2	38	0	1	1	2	3
Licking	3	49	0	0	1	2	3
Muskingum	7	98	0	3	0	9	9
Athens	4	0	2	2	2	5	7
Tuscarawas	3	0	2	1	0	5	5
Stark	4	0	0	4	4	16	20
Belmont	1	0	0	1	1	2	3
Portage	1	0	0	0	0	1	1
Crawford	0	0	0	0	0	1	1
Guernsey	9	3	3	5	3	12	15
Gallia	0	0	0	0	0	4	4
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Carroll	0	0	0	0	0	1	1
Vinton	1	2	0	0	0	1	1
Lawrence	0	0	0	0	1	2	3
Meigs	7	0	0	7	2	13	15
Perry	1	0	0	1	0	5	5
Delaware	0	0	0	0	0	1	1
Total Jan.	70	218	18	36	27	112	139
Total Dec.	49	532	13	20	35	149	184
Difference	21	314	5	16	8	37	45

Michigan Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Midland	4	450	2	0	22	18	40
Isabella	7	265	2	2	21	33	54
Gratiot	1	0	1	0	5	1	6
Saginaw	1	0	1	0	4	2	6
Oakland	1	0	1	0	0	1	1
Mecosta	1	0	0	1	7	3	10
Ogemaw	5	232	0	0	24	15	39
Bay	1	0	1	0	1	0	1
Oceana	0	0	0	0	5	10	15
Huron	0	0	0	0	0	1	1
St. Clair	0	0	0	0	2	0	2
Clinton	0	0	0	0	1	0	1
Clare	0	0	0	0	3	0	3
Kent	0	0	0	0	1	3	4
Emmett	0	0	0	0	1	1	2
Cass	0	0	0	0	6	1	7
Sanilac	0	0	0	0	3	0	3
Newyago	0	0	0	0	0	3	3
St. Joe	0	0	0	0	0	1	1
Shiawassee	0	0	0	0	1	4	5
Allegan	0	0	0	0	3	2	5
Livingston	0	0	0	0	1	3	4
Alpena	0	0	0	0	1	0	1
Cheboygan	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Alcona	0	0	0	0	2	0	2
Macomb	0	0	0	0	2	1	3
Montcalm	0	0	0	0	2	10	12
Muskegon	0	0	0	0	5	7	12
Gladwin	0	0	0	0	1	3	4
Eaton	0	0	0	0	0	1	1
Hillsdale	0	0	0	0	2	0	2
Lenawee	0	0	0	0	1	0	1
LaPeer	0	0	0	0	3	2	5
Roscommon	0	0	0	0	2	0	2
Mason	0	0	0	0	0	1	1
Chippewa	0	0	0	0	0	0	0
Tuscola	0	0	0	0	1	0	1
Total Jan.	21	947	8	3	133	129	262
Total Dec.	34	4,808	10	9	124	137	261
Difference	13	3,861	2	6	9	8	1

Geologist Appointed as Texas University Regent

Dr. George Dillon Morgan, San Angelo, Tex., president of the Cardinal Oil Co., graduate of the University of Oklahoma, and Ph.D. of Columbia University, author of technical treatises on oil, and

DR. GEORGE D. MORGAN

geologist, has been appointed a member of the University of Texas board of regents by Governor Allred.

He is especially familiar with the 2,000,000 acres of University of Texas lands, including its oil lands.

Doctor Morgan was one of the organizers of the West Texas Land Owners and Oil Producers Association. He is identified with the American Association of Petroleum Geologists, the Geological Society of America and the American Institute of Mining and Metallurgical Engineers.

DEATH OF A. W. THOMPSON

Arthur W. Thompson of Bradford, Pa., died in a Balimtore, Md., hospital on Sunday, February 3, after an operation. He had been in ill health for several months. He was the son of the late W. P. Thompson, pioneer oil producer, who died in the summer of 1929.

Arthur W. Thompson entered the oil industry by way of the supply business. After finishing his schooling he entered the employ of the Oil Well Supply Co. in Bradford and later was sent to the Mid-Continent Field for the company, making his headquarters in Tulsa. When the Continental Supply Co. was organized, Mr. Thompson joined that organization and was given a responsible position with headquarters in Pittsburgh, Pa. Later he joined the International Supply Co. and returned to Tulsa. His father's illness in 1929 made it necessary for him to sever his Mid-Continent connections and return to Bradford, where he afterward lived.

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Among Gulf Coast Drilling Contractors

Glenn H. McCarthy, Inc., has completed No. 1 Barnabas Wickson, a semiwildcat well in the Big Creek Field, as one of the best flush wells in the field. An open flow test will be made and gauged in the next day or so, but operators estimate the producer as good for several hundred barrels daily. The well is located on the W. C. Moore and J. H. P. Davis tract in the Barnabas Wickson League, Fort Bend County. It was bottomed at 3,670 feet in 18 feet of oil sand, and is owned jointly by Glenn H. McCarthy, Inc., and Seaport Oil Co. McCarthy also has a rig drilling below 4,900 feet in the Conroe Field for the West Production Co.

George Echols has completed a dry hole at 6,603 feet for Walter Goldston near Satsuma in Harris County, and is moving his big gasoline rig to Manvel, Brazoria County, where he will drill a well for the Windsor Oil Co. Echols also has a rig running for the Humble Oil & Refining Co. on Thompson's ranch in Bee County; is drilling jointly with Ralph Townley a well in the Manvel Field for E. A. Stone; has completed No. 11 Cartwright for the Houston Oil Co. and is waiting for another location for the same company in Conroe; is preparing to move a rig into Government Wells Field to drill a well for the Texas Co.; and is drilling a well for the Sun Co. on the J. H. Allen and others tract in Jim Hogg County, near Hebbronville.

W. Claud Smith is drilling below 4,400 feet on a well for the Texas Co. at Tomball.

Smith & McDannald have a new location for the Tide Water and Texas Seaboard Oil companies in the Cayuga Field, to be carried as No. 16-A Wills, and a new location in East Texas for the Tide Water Oil Co. to be carried as No. 13 Shaw.

Alamo Drilling Co. is drilling below 5,750 feet on No. 1 Laura Lackner for Means & McGee in the Eureka Heights Field. They are also drilling below 2,000 feet on No. 1 Neuhaus in the same field for Means & McGee. The C. B. Bunte discovery well in this field, also drilled by Alamo Drilling Co., after being reworked and new screen set, is now making 60 bbls. of distillate per day and 4,000,000 feet of gas on a three-sixteenths-inch bottom hole choke.

Jeff Hooper is rigging up at Coleta Creek to drill a well for himself and Rupert Cox, location being 600 feet from a producing well recently completed by Albert Plummer. Hooper also has one rig running in the Sam Fordyce Field for the Windsor Oil Co.

L. W. Capps is drilling at 4,200 feet for the Seaport Oil Co. on a wildcat test in Walker County.

John Deering is moving a rig into Matagorda County, where he will drill a 6,000-foot test for himself and others. Location will be approximately 6 miles southeast of the Louise Field, close to the juncture of Wharton, Matagorda and Jackson Counties. Deering is also moving a rig into the North Dayton Field to drill a well on the south edge of the field for Deering & Kaiser. On No. 1 Crews, in the Batson Field, Deering is drilling at 4,000 feet for the Batson Oil Co.

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When they tell you at the Houston offices of DeArman Brothers Drilling Co. that Henry DeArman is out on a "fishing job," it probably means that he is out in the Gulf on the Freeport red snapper bank—comfortably yanking them in from the "fishing job" above illustrated. Which goes to show that there are fishing jobs and fishing jobs. This one is thirty-five feet of solid comfort, fully equipped for cruising almost anywhere. The log shows that some notable catches have been made on the deep banks from the Alice Joyce. Henry DeArman, E. T. DeArman and Tip DeArman comprise the firm, the latter two making headquarters in East Texas, where, after selling 5 wells recently, the company still has 16 wells producing, with a 17th being completed this week. The company also has five more locations to drill in East Texas, where two rigs are now running. Henry DeArman started his oil field career as a roughneck in Petrolia, Texas, in 1910. In 1913 he became a driller for the Corsicana Petroleum Co. in Burkburnett, working on one of the first rigs in that field. Following the war, he started his own contracting company in 1919, and has drilled wells throughout the Mid-Continent

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Gillis Area Developing Into Important District; Well Makes 58 Barrels Hourly, 45 Gravity

By F. L. SINGLETON
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Feb. 11.—The appearance of the Gillis area, northeastern Calcasieu Parish, Louisiana, developing into a pool of major importance seemed assured during the week by the completion of Fohs Oil Co.'s No. 1 O. H. Castle, which extended the producing limits 1 mile south, when it made 58 bbls. of 45 gravity oil per hour through a three-eighths inch choke, with tubing and casing pressure equalized at 600 pounds. Production is coming from 22 feet of sand thought to be the Marginulina formation bottomed at 7,065 feet.

The test opens an entirely new producing horizon in the field, as its producing depth is 197 feet lower than Union Sulphur Co.'s No. 2 Barbe, the discovery, due north, and 206 feet lower than the company's No. 1 State, approximately 1½ miles northeast. It is by far the best well completed in the area, and bears out the contention of many, the field will prove important discovery. No salt water was reported in the production tests, whereas Union Sulphur Co.'s No. 2 Barbe and No. 1 State, which are producing from the 6,750-foot horizon, are making from 5 to 22 per cent salt water.

Fohs Oil Co. owns approximately 1,700 acres in the area, and is reported to have made plans to start an extensive development program on its properties. Permit has already been granted for No. 1 McIvor, material for which will probably be moved in this week.

Three out of five tests being drilled by Union Sulphur Co. have reached interesting depths. Offsetting the new producer, its No. 1 O. H. Castle, is drilling in water sand below 4,471 feet. Its No. 1 Powell, offsetting its No. 1 State, a producer, is drilling in sand at 6,741 feet and should reach the pay horizon within the next few feet. No. 1 Buhler, near the discovery well, is drilling in shale and lime below 5,482 feet.

Sour Lake Discovery

Another important discovery was registered at the Sour Lake Field, Hardin County, where Alpha Petroleum Co.'s No. 2-A Weiss, 3,500 to 4,000 feet east of the known dome, opened the first flank production of any importance from the Cockfield sand, when it made from 10 to 15 bbls. of fluid per hour, of which 30 per cent was oil and the balance colox and wash water. The well is still cleaning itself through a three-eighths inch choke, with gas pressure registering 1,000 pounds on the tubing and 800 pounds on the casing. The oil is 34 gravity.

This is the third test drilled on the east flank of the dome. The first test drilled by Parr and others on their Benard lease in Survey No. 69, indicated production from the Cockfield, when it made a small quantity of oil at a depth of 7,060 feet, but was never considered a commercial well, and was later abandoned. The operators turned their acreage to Alpha Petroleum Co. which drilled its first test, No. 1 J. M. West, 320 feet closer to the dome, and abandoned it at 7,012 feet. It was 135 feet higher than Parr and Carpenter's No. 1 Benard. The operators' No. 2 Weiss was abandoned in shale at 5,644 feet, due to a stuck drill stem, and the rig was moved 100 feet west, which resulted in the new discovery. Casing was cemented at 6,660 feet, and screen was set from 6,696 to 6,808 feet, the total depth. The only other flank production on the dome is found on the southwest side of the field in the Oligocene sand at approximately 4,100 feet.

Cleveland Field

Black Gold Petroleum Corp.'s No. 1 R. D. McDonald extended the producing limits of the Cleveland Field, Liberty County, when it flowed 5 bbls. of oil per hour through a one-quarter inch choke with tubing pressure 1,500 pounds and casing pressure 1,900 pounds. It is bottomed in sand at 5,839 feet and is 650 feet west of production in the T. Devers Survey. This is the first test completed in the field by an independent company, and is expected to cause considerable drilling along the west side.

On the last 24-hour gauge reported, the well flowed 264 bbls. through a three-eighths inch choke, with tubing pressure 1,450 pounds and casing pressure 1,700 pounds. The company is clearing location for its No. 2 R. D. McDonald, 466 feet west of the most westerly east line and 466 feet north of the most northerly south line of the T. Devers Survey, and is 933 feet west of Gulf Production Co.'s No. 7-C Kirby, abandoned as a dry hole. On the east side, Gulf Production Co.'s No. 7-C Kirby is nearing the pay horizon, as it is drilling below 5,617 feet. This is the first test drilled on the east side, and is 933 feet east of the company's No. 1-C Kirby, the discovery well.

Waller County

The wildcat test of Stanolind Oil & Gas Co., No. 1 J. W. Thorp, a unitized test in the southeastern part of Waller County, is being watched as it prepares to make a test from a plugged back depth of 7,475 feet, after being drilled to 7,647 feet. It has encountered several showings of gas, but has not reported any showings of oil. The test is being made after the operators had made an electrical coring test of the hole. Location is in the J. M. Bennett Survey No. 100. Late in the week, the operators encountered trouble in getting the screen to the bottom of the hole, but it is expected to be tested by the first of the week.

Harris County

Two interesting wildcat tests in Harris County were marked up as dry holes. On the Ogburn prospect, western part of the county, Goldston and others' No. 1 Weingarten was abandoned in the Cockfield sand at a total depth of 6,606 feet, which was topped at 6,350 feet. The test checked considerably lower than the other two dry holes on the prospect. Location is in the H.&T.C. Survey, Section 39. East of Houston, in the Richard and Robert Vince Survey, Cockburn Oil Corp. and others' No. 1 Brooks made an electrical coring test at a total depth of 6,015 feet and was abandoned. No show of oil or gas was encountered in the Frio sand, which was encountered from 5,276-5,331 feet.

In the same county, but in the Eureka Heights area, Means and McGehee's No. 1 Laura Lackner, three-quarters of a mile northwest of the discovery well, is drilling in the Vicksburg shale below 5,750 feet. It topped the Discorbis at 3,746 feet and the Heterostegina at 3,932 feet. Based on the latter marker it is running approximately 42 feet higher than the discovery and the prospects for another producer of some kind appears to be favorable at this time. Location is in the Henry Reinerman Survey. It topped the Discorbis at 3,746 feet and the Heterostegina at 3,932 feet. The same operators' No. 1 Neuhaus, in the William P. Morton Survey, approximately 1½ miles north, is drilling in shale below 2,000 feet.

Hastings Field

The Hastings Field, northeastern Brazoria County, got another location when Stanolind Oil & Gas Co., which drilled the discovery well, made location for its third test. Material is being moved in for No. 1 W. B. Wooster, 466 feet from the north line and 466 feet from the southeast line of the Wooster 70-acre tract in the A.C.H.&B. Survey No. 1. It is approximately 2,700 feet north of the discovery. The company's No. 1 J. W. Surface, discovery well, is being recompleted after 5-inch casing had been cemented in an attempt to shut off some escaping gas. Late in the week, the operators were swabbing, but the well had failed to flow.

Dickinson Field

In the Dickinson Field, Galveston County, Humble Oil & Refining Co.'s No. 1 Danielson, in the John Sellers Survey, approximately one-half mile southeast of the company's No. 1 Maco Stewart, is coring in sand below 7,763 feet, after topping the Frio (pay horizon) at approximately 7,550 feet. Based on this marker it is running approximately 162 feet higher than No. 1 Maco Stewart, located northwest. The following are the tops on the three wells completed in the area, compared to the Danielson test:

Company and farm name—	Discorbis	Heterostegina	Marg.	Frio
Pure Oil Co., Shelor	6,555-86	6,848	7,086	7,780
Humble O. & R. Co., No. 1-B Stewart	6,570	6,812	7,052	7,899
Humble O. & R. Co., No. 1 Maco Stewart	6,582	6,786	7,009	7,712
Humble O. & R. Co., Danielson	6,360	6,630	6,784	7,550

No. 1 Danielson is reported to be in gas sand, and every precaution is being made by the operators to prevent another blowout.

Pure Oil Co.'s No. 1 Shelor, in the B. B.B.&C. Survey, which was completed for a distillate producer, is still cleaning out preparatory to deepening. It is reported the hole will be deepened 30 feet if necessary to complete the well as an oiler. It is bottomed at 8,016 feet.

Manvel Field

Sterling Oil & Refining Co. entered into activities in the Manvel Field, Brazoria County, when it made location for its No. 1 W. A. Gamble, in the center of Lot 78, in the Erastus Little Survey, approximately 1 mile west of Bowles and Borsodi's No. 1 Norvell Investment Co., which extended the deep production found in the south end of the field to the north end, when completed two weeks ago. It is in the northwest part of the field, and is the first test drilled in the Erastus

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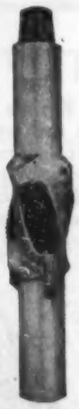

The shearing action of the three "barrel" shaped cutters, which are set at an angle, cut the walls of the hole cleanly and smoothly. This action keeps the hole free of any tight spots and allows closer tolerances between the hole and casing.

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Little Survey, consequently it will be the most interesting well drilled in the field. The operators are building derrick and it is expected to be spudded by the middle of the week. The company made a deal with Gamble and Gamble for approximately 200 acres, and are obligated to drill four wells provided the first test makes a producer. After the first test is completed, the other thre tests will be drilled on a 50-50 basis.

In the southwest end of the field, Cron and Gracy's No. 1 Gubert, in Section 74, Block 28, Charles O'Donnell Survey, was completed at a total depth of 5,143 feet for an initial production of 20 bbls. per hour through a one-quarter inch choke with tubing pressure 400 pounds and casing pressure 600 pounds. The test is on farmed-out acreage, recently held by the Shell Petroleum Corp.

Hardin County

In the northern part of Hardin County, on the Kountze area, Frazier and Greer have made location for their third wildcat test. It is 2½ miles northwest of the town of Kountze on the O. Sternberger Lumber Co. lease, 1,325 feet south and 400 feet west of the northeast corner of a 115-acre tract in the J. Pearson Survey. It is to be drilled to the Cockfield sand found in the same operators' No. 1 O. Sternberger at 6,770 feet. It was abandoned the past year at a total depth of 6,998 feet and is 1½ miles southeast in the H.&T.B. Survey No. 283. The other abandonment drilled by the operators is southeast of Kountze in the W.C.R.R. Survey.

Jefferson County

Two miles west of Beaumont in northeastern Jefferson County, Humble Oil & Refining Co. is reported to have made arrangements to drill its 5,000-acre block. The block has been worked with geophysical instruments, and small tracts which were left open are reported to be selling for $75 per acre.

Polk County

In the northeastern part of Polk County, Koch and Stevens are preparing to deepen their No. 1 Rutch Lawrence, shut down for several months at a total depth of 2,683 feet.

Wildcat Prospects

If negotiations which are now under way are consummated, several interesting wildcat tests are to be started on several important acreage blocks throughout the district. In the western part of San Jacinto County, Laverne Decker is selling spreads for a test to be drilled on his large block. Centering around the Stolze Survey, in the western part of Austin County, Arkansas Fuel Oil Co. is planning to drill its block. In Colorado County, Claude Morgan and others have sold spreads to several major companies for a test to be drilled on their block, located 2 miles southwest of C. B. Bunte's dry hole in the eastern part of the county, south of the town of New Ulm. It is reported that Tide Water Oil Co. is planning to drill its block, centering around the Jonathan Scott Survey, northeast of the town of East Bernard, in Wharton County. In the northern part of For Bend County, C. B. Bunte is assembling a block for a test to be drilled in the near future. The block centers near the town of Richmond and location for a test is expected to be several miles south of Phillips Petroleum Co.'s dry hole, abandoned at a total depth of 7,060 feet.

SOUTH LOUISIANA

One completion and two new locations were reported for the Bosco Field, Acadia and St. Landry Parishes, Louisiana. Superior Oil Production Co.'s No. 5 Larcade in Section 35, and within the proven limits, was completed for an initial production of 60 bbls. per hour from a total depth of 7,846 feet. Nine and five-eighths inch casing was cemented at 7,845 feet. The new locations were made for the company's No. 4 Comeaux in Section 34, and No. 2 Johnson in the same section.

Coastal Louisiana continues to be the scene of considerable leasing activity, with the majority of the leasing taking place in Calcasieu Parish. Northeast of the Old Town Bay Field and west of Gulf Refining Co.'s Hecker block, Humble Oil & Refining Co. purchased 280 acres out of Section 8-8s-7w for a reported price of $2 per acre. Out of Sections 11, 12, 13 and 14-8s-8w the company purchased 400 acres. In the eastern part of the parish, on what is known as the Hayes area, major companies and independent operators continue to take leases and royalty in this area, which has been the scene of considerable activity for the past several weeks.

East of Gulf Refining Co.'s Gum Cove Prospect, on which the company is drilling its No. 1 W. H. Starks and others, Humble Oil & Refining Co. is reported to have leased from L. F., C. H. and S. P. Beckenstein a few hundred acres in Section 31-11s-11w for a reported price of $1,170.

In the eastern part of Cameron Parish, Pure Oil Co. is reported to have leased approximately 3,400 acres north of Lake Misere on a short term selection. The acreage was leased from the Lake

(Continued on Page 63)

Wildcat Operations on Gulf Coast

Week Ended February 9

RACCOON BEND—AUSTIN COUNTY

Humble O. & R. Co.'s No. 4-X Jackson, 315 ft. from SE line, 313 ft. from NE line, Wm. C. White Sur.
T.D. 4,133 ft.; I.P. 53 bbls. per hr.; ¼-in. choke.

Humble O. & R. Co.'s No. 5-X McCasland, 419 ft. SE along NE line, 377 ft. at R.A. from NE line, Wm. C. White Sur.
T.D. 4,140 ft.; 7-in. csg. 3,973 ft.; no report.

Humble O. & R. Co.'s No. 9 Sherrod.
S.D. 4140 ft.

Humble O. & R. Co.'s No. 11-X Woodley.
Fishing 6,366 ft.

DANBURY—BRAZORIA COUNTY

Shell Pet. Corp.'s No. 7 Blakely-Winston, 63 deg. 11 min. E, 5,540 ft. N, 26 deg 49 min. W, 200 ft. from SW cor. of Blakely-Winston 560-ac. tract, H.T.&B. Sur.
Coring shale 6,162 ft.

Shell Pet. Corp.'s No. 3 Haury, 300 ft. SE of No. 2 in line with No. 2 and No. 1 Blakely-Winston, H.&T.B. Sur. No. 13.
T.D. 7,237 ft.; connected up blowout preventer.

DAMON MOUND—BRAZORIA COUNTY

Gulf Stream, Inc.'s No. 1 Cave Heirs, 160 ft. from N line and 60 ft. from E line of Lot C, Blk. 58, A. Darst Sur.
D.S. stuck 1,744 ft.

Esco's No. 1-D Wisdom, 25 ft. from S and W lines of Blk. D, Lot 5, A. Darst Sur.
S.D. 1,863 ft.

HASTINGS—BRAZORIA COUNTY

Stanolind O. & G. Co.'s No. 1 Wooten, 466 ft. S of N line, 466 ft. from SE line of 70-ac. tract, A.C.H.&B. Sur. No. 1.
Moving in material.

Stanolind O. & G. Co.'s No. 1 W. J. Miller, 466 ft. out of SW cor. of the Miller 3,939-ac. tract, in A.C.H.&B. Sur. No. 2, 2,000 ft. E of discovery well.
Drlg. lime and shale 3,585 ft.

Stanolind O. & G. Co.'s No. 1 Steve Paul, 476 ft. from the E line and 466 ft. from N line of 160-ac. tract, A.C.H.&B. Sur. No. 2, 2,100 ft. S of discovery well.
13-in. csg. 1,618 ft.; T.D. 1,647 ft.

MANVEL—BRAZORIA COUNTY

Allison & Richey's No. 2 Gulf Coast Home Co., 347 ft. S, 441 ft. W from NE cor. of Lot 38, H.T.&B. Sur. No. 3-B.
Rigging up.

Bowles & Borsodi's No. 2 Norvell Investment Co., C of Lot 57, H.&T.C. Sur. Location.

Bowles & Borsodi's No. 3 Norvell Investment Co., Blk. 46, H.&T.C. Sur. No. 23.
Cmtd. surface csg.

Cron & Gracey's No. 1 Gubert, Charles O'Donnell Sur. No. 74.
T.D. 5,153 ft.; 7-in. csg. 5,142 ft.

J. W. Sorrells' No. 1 Swift, Blk. 21, Abst. 318, H. N. Little Sur.
Derrick.

E. H. Stone's No. 1 H. McCauley, 350 ft. from E line, 300 ft. from S line of Lot 2, A.C.H.&B. Sur.
Bldg. derrick.

Texas Co.'s No. 6 Ewing, 330 ft. N, 47 deg., 59 ft. W and 263 ft. S, 41 deg., 40 ft. W of SE cor. of lease.
Bldg. derrick.

Texas Co.'s No. 1 C. P. Dawson, 2,475 ft. S, 441.9 ft. W of NE cor. of Lot 59, H.T.&B. Sur. No. 23.
Set 13⅜-in. csg. at 1,157 ft..

Texas Co.'s No. 2 A.R.G.G.H. Co., in C of Lot 37, H.&T.C. Sur. No. 23.
Set 10¾-in. csg. at 1,165 ft.

Texas Co.'s No. 10-A Belcher, N 43 deg. E 330 ft. and N 43 deg. W 330 ft. from S cor. of Belcher "A" lease, H. N. Little Sur.
Drlg. sand 4,150 ft.

(Continued on Page 82)

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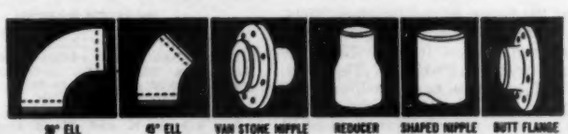

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Deep Tests in Union County, Southern Arkansas; Continued Activity in North Louisiana Area

By J. R CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Feb. 11.—The announcement of two deep tests in separate areas in Union County, South Arkansas, the continuance of an active campaign of drilling in old proven areas of North Louisiana, three of which are Trinity gas wells, together with a few scattered wildcat locations in both districts, broke an otherwise dull period in this division during the past week. The completions were few, and dry holes greatly outnumbered the producers even in the new Rainbow producing horizon from which much has been expected.

ARKANSAS

This district yielded only five completions with one lone oil well and four dry holes. The former, H. L. Hunt, Inc.'s No. 11 J. D. Gregory, Section 10-17-14, set 7-inch casing at 3,394 feet with perforated casing from 3,416-50 feet. The first 12-hour gauge the well flowed 83 bbls. of oil with 6 per cent salt water through tubing with the bottom of the hole at 3,450 feet. The other completions in the Rainbow Field were both dusters. Alice-Sidney Oil Co.'s No. 9 E. F. Gregory, Section 11-17-14, encountered salt water and was abandoned at 3,500 feet. Monroe Production Co.'s No. 1 Z. B. Sinclair, Section 16-17-14, was abandoned as dry at 3,503 feet. In Section 29-18-11, Union County, C. H. Murphy and others' No. 1 Union Saw Mill Co. was dry and abandoned at 3,711 feet.

The new area about 5 miles west of Camden in Ouachita County got another setback during the week when T. J. Gaughan's No. 2 Bragg, Section 25-13-18, tested salt water and was abandoned at 1,366 feet. The well was a 600-foot north offset to the same operator's discovery well which has been pumping about 50 bbls. of 17 gravity oil from 1,369 feet for the past month. A south offset to the discovery well proved a failure the second time in the shallow sand after plugging back from 2,500 feet. J. D. Reynolds' (formerly listed as T. J. Gaughan's) No. 1 Cartier, in the same section as the above wells, was abandoned as dry after failing to encounter a show to a total depth of 1,390 feet. This area continues to get a play, however, with two new locations staked. Three miles southeast of the Bragg well, Kraft Oil Corp. is rigging up on its No. 1 Rath and Cartier in Section 32-13-17. J. Bruce Street, trustee, has derrick up on his No. 1 J. M. Ashworth, Section 19-13-17, about 1 mile east of the discovery well.

Deep Test in Rainbow

About the center of the Rainbow Field, Union County, H. L. Hunt, Inc. will make a deep test of its No. 15 E. F. Gregory, Section 10-17-14. The test, which will probably be drilled to 7,000 feet, tested 330 feet of oil and an excessive amount of salt water on drill stem test from 3,428-40 feet from the lower red bed sand. The last drilling report gave it coring hard broken lime at 4,388 feet. The results of this deeper drilling in an area that has proved disappointing within the past few weeks from the newly discovered Taylor sand around the 3,400-foot level will be watched with interest by operators in that area. The Rainbow Field expects several promising producing wells within the next week as a result of tests during the past seven days, but on the other hand, there are a number of wells now standing temporarily abandoned as a result of adverse showings in the lower red bed sands. J. E. Crosbie's No. 1-B W. E. Gregory, Section 15-17-14, stands temporarily abandoned at 3,503 feet; Durand Development Co.'s No. 1 H. Ezzell, Section 13-17-15, is shut down waiting orders at 3,512 feet; Lion Oil Refining Co. has two wells in Section 15-17-14, which failed to get the pay sand, and two other wells are arranging to plug back to the original pay in that area. The one bright spot in an otherwise dull week in Union County was Reuter Oil Co.'s No. 2 Vines, Section 29-18-14, about 4 miles south and 5 miles east of previous production. The well is waiting on standard rig to pump from 2,205 feet, and is rated as a 25-bbl. daily producer.

Smackover Area

In the Smackover area of Union County, the Gulf Refining Co. is moving in rig on its No. 49 L. Werner, Section 5-16-16. It is reported the test will be drilled to 8,000 feet on the flank of a deep seated salt dome encountered about two years ago by a test drilled by the Lion Oil Refining Co. and others. The latter deep test was drilled to 7,255 feet and abandoned after drill stem stuck in rock salt, penetrating the latter formation at about 1,400 feet.

In addition to the two new operations mentioned in the Camden area and the Gulf well in Smackover, South Arkansas has reported nine other new locations during the past two weeks. In Lafayette County, Riggs Brothers are rigging up No. 1 Dubose in Section 35-15-25. Kamon and Neely's No. 1 Cockran, Section 26-19-25, in the same county, has recently spudded in and set 12½-inch surface casing at 140 feet. The Miller County Field reports two new wells within the field proper, and another wildcat about 9 miles northwest of the proven area. The latter, King Oil Corp.'s No. 1 E. G. Anderson, Section 16-14-27, has set 10-inch surface at 81 feet. Same operator's No. 1 C. H. Schroder, Section 24-14-28, is shut down at 3,167 feet. It is not known at this time whether the rig will be moved from the latter test and a heavier rig installed as had been planned or whether a deeper test will be made on the new well. All of the other new operations in the Arkansas district were staked in the Rainbow Field.

NORTH LOUISIANA

One oil well and one wildcat dry hole made up the list of completions in this district. The former was in the northeast extension of the Pine Island Field, Caddo Parish, J. I. Roberts Drilling Co.'s No. 1 Lane & Simon, Section 15-20-15, pumping 70 bbls. from 2,200 feet. A wildcat that looked hot last week in the upper Blossom sand in the northwestern part of Bienville Parish repeated numerous other tests in that parish as a failure. M. V. Duncan and others' No. 1 J. Hutton, Section 4-18-7, was dry and abandoned at 3,350 feet. The test logged the top of Cane River at 435 feet, Wilcox at 615 feet, Midway at 1,370 feet, Arkadelphia at 1,944 feet, Saratoga chalk at 2,240 feet and the Blossom at 2,800 feet. As the wildcat is on a block of some 10,000 acres and developed a good show and checked higher than many other tests in that area, it is reliably reported another well will be drilled at an early date. Before the next location is made, a series of core tests to the base of the Cane River will be conducted over the area in an effort to establish the high. These core tests will be under the direction of D. L. Perkins, independent consulting geologist of Shreveport.

The North Louisiana district has reported 12 new operations staked during the past two weeks and several blocks in the making. About 6 miles southwest of the Converse Field in Sabine Parish, Laurel Production Co. is reported to be assembling a block centering around Section 14-8-14. The contract calls for a 2,400-foot hole with operations to begin by April 1. The operators are looking primarily for chalk rock production, produced in the Converse Field around 1,900 feet, in the west Zwolle Field around 2,150 feet and in the east Zwolle Field around 2,700 feet. The block extends to the Sabine River on the west and is about 6 miles northwest of the Blue Lake Field, the original chalk producing area in Sabine Parish.

Caddo and Bossier

The Caddo and Bossier Parish fields continue to get a good play as indicated by recent completions and new locations. Each of these parishes has a Trinity gas producing field, and three new wells have spudded in, two in the Rodessa Field, Caddo Parish, and one in the Sligo Field of Bossier Parish. In addition to the deep drilling, Caddo Parish is experiencing consistent activity in the northeastern extension of the old Pine Island Field, in the Hosston area and the Blanchard gas field.

ALABAMA AND FLORIDA

A Conecuh County wildcat, Ray L. Easterbrook's No. 1 T. R. Miller Land Co., Section 1-4n-12e, has set 9⅝-inch casing at 1,012 feet and is drilling at 1,085 feet. In Covington County, Geometer Production Corp.'s No. 1 A. B. Culbreath, Section 8-2n-14e, is drilling at 1,100 feet. The same company is rigging up on its No. 2 Walton Land & Timber Co. in Section 10-1s-19w, a recently staked location on a large block in Walton County, Florida. The beginning of what is planned as an extensive wildcatting campaign over a wide area in Florida was announced this week under a date line from Jacksonville. The Oil Development Co. of Florida, through its president, William G. Blanchard, announced that its first well of a 50-well drilling program will be spudded in at an early date. Contract for drilling the first well is reported to have been awarded to Sam E. Wilson, Jr., of El Dorado, Ark. The exact location for this test has not been staked, but it will be in Lake County, and will be drilled to 6,000 feet. The operators state that six years of geological and preliminary exploratory work has been carried on over a wide area and included in this has been the use of seismograph and magnetic instruments.

Average Daily Production

Estimated daily gross production, all companies, week ending February 8, is as follows:

NORTH LOUISIANA

	Bbls.
Bellevue	480
Caddo, light	4,680
Caddo, heavy	1,690
Converse	1,155
Cotton Valley	450
DeSoto and Red River	1,435
Elm Grove	365
Haynesville	3,555
Holly	165
Homer	2,675
Pleasant Hill	190
Sarepta-Carterville	535
Urania	3,200
Zwolle	2,230
Total	22,905

SOUTH ARKANSAS

Champagnolle	3,575
El Dorado	2,290
Lisbon	325
Miller County	1,650
Nevada	835
Smackover, light	2,190
Smackover, heavy	17,975
Stephens	500
Urbana	2,165
Total	31,225

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

AVOYELLES PARISH

Southern Star Pet. Co.'s No. 1 O. G. Boyette, Sec. 28-3-5e.
Set 12½-in. 450 ft.; arranging to set 8-in. 1,735 ft.

BIENVILLE PARISH

M. V. Duncan et al's No. 1 Hutton. 400 ft. S, 330 ft. E. NW cor. Sec. 4-18-7.
Dry and abd. 3,350 ft.
Saline Drlg. Co.'s No. 1 Pardee, Sec. 27-14-6.
S.D. 2,670 ft.

BOSSIER PARISH

Ark.-La. Gas Co.'s No. 1 R. O. Roy, Sec. 18-17-11.
Set 13⅜-in. 220 ft.; drlg. 835 ft.
Howard & Baird's No. 1 Gold, 150 ft. S and E. NW cor. Sec. 36-20-13.
S.D. 1,126 ft.
W. A. Kirkland's No. 1 Jarrett & McKeiler, 330 ft. N and W. S cor. NW NW Sec. 3-21-13.
Set 10-in. 43 ft.
Leonard Co.'s No. 1 Pearson, 250 ft. S and E, of C Sec. 22-21-14.
S.D. for fuel 2,408 ft.
Scott & Howard's No. 1 Sherrill, Sec. 13-19-13.
Partly rigged up and S.D.
R. L. Skidmore et al's No. 1 Davis, Sec. 13-18-13.
Coring 1,028 ft.

CADDO PARISH

Ark.-La. Gas Co.'s No. 2 Rodessa O. & Devel Co., Sec. 23-23-16.
Set 13⅜-in. 216 ft.; drlg. 1,325 ft.
E. H. Bailey et al's No. 1 Hartzo, NW cor. NE NW Sec. 23-22-16.
Moving in rig.
W. T. Bell et al's No. 1 Bostick, 1,320 ft. E. 460 ft. N. SW cor. Sec. 12-22-16.
Drlg. 2,652 ft.
Cal.-La. Devel. Co.'s No. 1 Glassell, NW NE Sec. 11-19-15.
Set 10-in. 40 ft.
A. D. King, Jr.'s No. 1 Roach, 641 ft. E. 375 ft. N. SW cor. SE Sec. 4-14-16.
S.D. 2,128 ft.
Press & Lambert's No. 1 Hughes, Sec. 15-20-15.
Set 10-in. 80 ft.; drlg. 150 ft.
Shreveport Oil Corp.'s No. 4-C Muslow, 1,720 ft. E. 100 ft. N. SW cor. Sec. 4-20-15.
Set 5 3/16-in. 2,125 ft.
Tooke & Reynolds' No. 1 Levy, 330 ft. N and W. SE cor. NE Sec. 16-20-15.
W.O.S.R. 2,210 ft.
Tooke & Reynolds' No. 2 Levy, 300 ft. S and E. NW cor. SE NE Sec. 16-20-15.
Set 10-in. 40 ft.
J. I. Roberts Drlg. Co.'s No. 1 Lane & Simon, 480 ft. E. 150 ft. S. NW cor. SW Sec. 15-20-15.
Comp.; pumping 70 bbls.; 2,200 ft.
Press & Lambert's No. 1 Lane & Simon, 166 ft. S. 1,134 ft. E. NW cor. SW Sec. 15-20-15.
W.O.S.R. 2,196 ft.
V. & F. Oil Co.'s No. 2 Ethison, Sec. 16-20-15.
Set 10-in. 100 ft.; set 6-in. 2,144 ft.

CATAHOULA PARISH

T. R. Hincy's No. 1 La. Central Lbr. Co., Sec. 32-9-6e.
S.D. for D.S. 1,541 ft.
Phillipe et al's No. 1 Central Lbr. Co., Sec. 2-9-6e.
Arranging P.B. from 3,016 ft.

CLAIBORNE PARISH

J. C. King's No. 1 Odes Webb, 330 ft. S and E. NW cor. NW NE Sec. 21-21-8.
Set 10-in. 120 ft.; drlg. 1,100 ft.

DESOTO PARISH

Bayou Pierre Oil Co.'s No. 1 B. Y. Wemple, C SE NE SW Sec. 14-12-11.
W.O.S.R. 2,731 ft.
Century O. & Drlg. Co.'s No. 1 Morton, 300 ft. N and E SW cor. SE NE Sec. 27-11-14.
S.D. 2,613 ft.

(Continued on Page 82)

Southwest Oklahoma Lease Campaign Extends to Texas State Line; New Wells in Fitts

By JAMES McINTYRE

The very lively southwestern Oklahoma leasing play starting from the recent discovery wells in the Altus Field in northern Jackson County and extending into Greer County has spread itself out to Harmon County where an 11,000-acre block owned by Jud Leath and others of Wichita Falls, Tex., will, according to the owners, be tested with a well in either Section 21 or 22, near the center of the block which lies in Township 3n-24w. The lease buying has extended nearly to the Texas line.

W. E. Grisso has assembled a 1,000-acre block in Coal County and is reported to have closed a deal for a test in SW NE SE Section 28-1s-9e. Frank Smith, Phillips Petroleum Co., Sinclair Prairie Oil Co. and Z. K. McCoy have also gathered blocks in Coal County in Townships 1n-9, 1n-8, 1s-11, 2n-9, 1s-10 and 1s-9.

Scattered leasing has been done by the Indian Territory Illuminating Oil Co. and Gypsy Oil Co. in Grant County, in the extreme north of the State. The Barnsdall, Magnolia and Mid-Continent companies have also acquired leases in that county.

Winona Oil Co. and Jarvis & Holm, who opened the Wilcox sand production in the Fish Pool with their No. 1 Myers in Section 31-7-8, Seminole County, drilled into the big production in their No. 3 Myers, NE SW NE Section 31. Wilcox sand was found at 4,211-16 feet. It flowed about 300 bbls. per hour into ponds but the gas trap capacity was too small to permit the well to flow to capacity and preparations were being made to install larger traps. The well was shut in.

Carter Oil Co. in its No. 1 McKinnis, C E half SE SW Section 18-10-6, North Searight Pool, Seminole County, swabbed 864 bbls. in 24 hours from Wilcox sand at 4,596 feet, total depth. The company started No. 2 McKinnis, C W half SE Section 18-10-6.

One of the most interesting tests in central Oklahoma is Charles Carter and others' No. 1 Suenram, NE NE NE Section 7-13-3w. Pipe is set at 6,610 feet and the hole was bottomed at 6,858 feet and was expected to show what it is good for this week.

In the Fitts Pool

Carter Oil Co. completed No. 2 Lucy Brown, NE SE SE Section 25-2-6, in the Fitts Pool in southern Pontotoc County. It started at 600 bbls. an hour through 7-inch casing. Bromide was topped at 4,040 feet and sands were found at 4,150 feet and at 4,230 feet. McLish lay at 4,265-80 feet.

Fleetborn Oil Co.'s No. 1 Norris, SE NW NE Section 25-2-6, was completed. It is only a small well for that area, good for between 50 and 60 bbls. a day. It was drilled to 4,488 feet where it ran into salt water. Plugging back, shooting and acidizing failed to bring much results. Total depth is 4,466 feet.

Loual Drilling Co.'s No. 3 Craddock, SW NE NE Section 25-2-6, which was plugged back from 4,465 feet to 4,405 feet, was shot with 200 quarts at 4,155-4,235 feet and flowed 190 bbls. in 10 hours through casing. Bromide was topped at 4,320 feet.

E. H. Moore and others' No. 1 Showers, NW SW NW Section 29-2-7, was completed as a gas well. It started at 30,000,000 feet, having had gas sands at 1,292 feet, 1,660-75 feet, 1,705-15 feet, 1,785-95 feet, total depth 1,825 feet, with the big production coming from the 1,660 to 1,795-foot horizons.

Moore and others made locations for No. 2 Smith, NE NW NW Section 31-2-7, and No. 3 Smith, NW NE NW Section 31-2-7.

Kay County

Max Kelly has cellar dug for a wildcat, No. 1 Spore, NW NW SE Section 17-27-2e, in Kay County.

Osage County

Phillips Petroleum Co. deepened an old well in the Burbank Pool in Osage County, No. 1 Clubb, NW SW SE Section 9-27-5, from 3,029 feet to sand at 3,054-60 feet and was preparing to shoot. It is in the north end of the west side of the field.

Continental Oil Co. has a rig up for No. 4 Lassert, 300 feet from north and 990 feet from west lines of SE Section 21-24-7. Continental Oil Co. and Gypsy Oil Co. have rig up for No. 9 Farrell, 300 feet from south and 990 feet from west lines of NE Section 21-24-7; Lewis Production Co. has rig up for No. 3, 330 feet from north and 980 feet from west lines of SW Section 21-24-7, and for No. 7, C SW SE NW Section 21-24-7. Skelly Oil Co. was drilling below 300 feet in No. 5, SW SE NW Section 28-24-7. Osage Lease Holding Co. will deepen its No. 1, 300 feet south and 630 feet west of NE cor. Section 6-22-11. Barnsdall Oil Co. was moving in material for No. 24, 1,320 feet from north and 300 feet from west lines of NE Section 30-21-9. Johnston Oil & Refining Co. had material in to start a well in NW cor. SE Section 30-21-9.

Lincoln County

In the West Chandler Pool in Lincoln County Sinclair Prairie Oil Co.'s No. 3 Hopkins, SW SW NE Section 12-14-3, is a 100-bbl. completion in Wilcox sand at 5,061-82 feet.

Twin State Oil Co.'s No. 2 Cook, NW SW SW Section 1-14-3, had Wilcox sand at 4,248-88 feet and flowed 803 bbls. naturally in 72 hours. The crew was cleaning out.

Magnolia Petroleum Co.'s No. 6 Wagner, SE SE SE Section 2-14-3, had pay at 4,244-46 feet, total depth, and produced 502 bbls. in 88 hours.

In the Chandler Pool Slick-Urschel, Inc., completed No. 3 Kentzleman, SE NE SW Section 7-14-4, an old well deepened from 5,026 to 5,049 feet. It pumped 120 bbls. initially, with some water.

Sinclair Prairie Oil Co.'s No. 1 Gauman, NW NW SW Section 34-14-4, was dry and abandoned at 3,218 feet. It was a Cleveland sand test.

Estimated Production

Estimated production by pools in Oklahoma for the week ended February 9 and for the preceding week follows:

	Barrels	
	Feb. 9	Feb. 2
Allen	8,600	8,575
Asher-West Asher	1,425	1,400
Burbank	8,800	8,800
South Burbank	10,000	9,500
Balance of Osage	27,000	27,000
Blackwell	4,800	4,850
Bristow-Slick	9,500	9,500
Chandler	6,000	6,000
Crescent	4,025	4,275
Cromwell	4,425	4,450
Cushing-Shamrock	12,900	13,000
Duncan district	4,150	4,100
Fish	7,550	8,225
Fitts	11,375	14,625
Gray	1,250	1,650
Graham	3,600	3,600
Healdton	9,100	9,100
Hewitt	4,800	4,800
Holdenville	2,050	2,000
Keokuk	1,700	1,525
Konawa	2,450	2,400
Lucien	7,350	10,325
Marshall-Lovell	1,000	1,000
Oklahoma City	130,475	117,600
Papoose	1,300	1,250
Polo	5,200	5,100
Saskawa and townsite	1,625	2,025
Sholem-Alechem	4,000	4,000
Seminole Field:		
Bowlegs	10,450	10,300
Carr City	4,650	3,650
Earlsboro	8,250	8,550
East Earlsboro	7,200	7,325
South Earlsboro	750	775
Little River	11,450	11,660
East Little River	625	525
Maud	1,650	1,575
Mission	2,775	2,475
Seminole	9,075	7,825
East Seminole	1,075	1,000
Searight	3,250	2,050
Total Seminole	61,200	57,705
St. Louis-Pearson	20,475	17,600
Tatums	4,750	5,000
Tonkawa-Garber-Thomas	6,000	6,000
Wewoka	4,000	4,000
Yale-Jennings	4,750	4,750
Other pools	57,900	55,595
Total Oklahoma	455,525	441,325

Greater Seminole

Phillips Petroleum Co.'s No. 4 Fixico, NW SW NE Section 26-9-6, Seminole Pool, Seminole County, old total depth 4,158 feet, was plugged back to 2,571 feet. It was found dry and was abandoned.

Wood Oil Co. had rig corners in for No. 1 Henry, NW SW NE Section 28-9-6.

Carter Oil Co. was digging cellar for No. 1 Black, C NE SE Section 14-10-6.

Turman Oil Co.'s No. 1 Hemmerick, NW NW NW Section 34-7-6, had 15,000,000 feet of gas at 2,116-32 feet, and was completed as a gas well. It had oil production in a lower sand but the gas killed the oil.

Champlin Refining Co.'s No. 5 Sea, NW SE SE Section 30-7-8, in the Fish Pool, which lies in both Hughes and Seminole Counties, flowed 15 bbls. per hour from Cromwell sand at 3,034-41 feet.

Magnolia Petroleum Co.'s No. 5 Reed, NW SE SE Section 30-7-8, set 7-inch on top of Wapanucka lime at 3,050 feet drilled to 3,094 feet. The well flowed 180 bbls. of oil in 12 hours. No. 6 Reed, a twin, SW SE SE Section 30, was drilling at 3,205 feet.

Stanolind Oil & Gas Co. completed No. 1 Sarkey B, NE NW SE Section 31-7-8, was deepened from 4,125 to 4,152 feet and flowed 667 bbls. in six hours.

Magnolia Petroleum Co.'s No. 1 Sharp, NE NE SW Section 6-6-5, was abandoned as a failure. It was a hole full of water from Wilcox sand at 4,230-70 feet

Wildcat Operations in Oklahoma

Week Ended February 9

NORTHERN OKLAHOMA

BECKHAM COUNTY

Fred Coogan et al's No. 1 Shelton, SW cor. Sec. 33-10-25w.
Drlg. 1,650 ft.

CADDO COUNTY

H. W. Lee et al's No. 1 Stacey Ferrell, SW NE NE Sec. 3-6-13w; (2,000-ft. test).
Drlg. 1,790 ft.

Denver Prod. & Ref. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w.
T.D. 11,230 ft.; C.O. to 10,000 ft.; flowing by heads 100 bbls. oil every other day.

CLEVELAND COUNTY

Sinclair Prairie et al's No. 1 Franklin, SE NW SE Sec. 21-10-2w.
Set 15-in. 387 ft.

COAL COUNTY

J. D. Petty Oil Co.'s No. 1 McMillan, SW NW NE Sec. 16-1s-8.
Running 6-in. csg. at 1,110 ft.

GARVIN COUNTY

Anderson & Kerr's No. 1 Riley, SE SE NW Sec. 2-4-1w (5,800-ft. test).
Drlg. 4,850 ft.

Charles Carter and W. S. Key, Inc.'s No. 1 Wood, C NW SW SE Sec. 5-4-3e.
Set surface pipe.

National Prod. Co.'s No. 1 Littrell, NE NE NE Sec. 31-2-3w.
Drlg. 1,120 ft.

George L. Pace's No. 1 Smith, SW NE Sec. 35-1-1.
Location.

GRADY COUNTY

Carter Oil Co. and Magnolia Pet. Co.'s No. 1 Harrison C-34, C NW NW Sec. 28-3-5w.
T.D. 8,963 ft.; cmt. plug placed at 5,200-5,450 ft.

GRANT COUNTY

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-8w.
Drlg. lime 6,030 ft.

HUGHES COUNTY

Dandridge & Crane's No. 1 Mead, NW NW NE Sec. 17-5-9.
10-in. 270 ft.; T.D. 750 ft.; S.D.

Freeman et al's No. 1 Kite, NW NW NE Sec. 8-6-10.
Set 5-in. csg. 598 ft.

Turner et al's No. 1 Williams, SW cor. Sec. 25-7-10.
Spudded and S.D.

KAY COUNTY

Harris & Haun's No. 1 Schuessler, C NW SW Sec. 3-28-2.
10-in. csg. 2,050 ft.

Bay Oil Co.'s No. 1 Holden, SW SW SE Sec. 14-28-3.
5-in. 2,945 ft.; drlg. plugs.

Lancer Oil Corp.'s No. 1 Hugo, SE NW NW Sec. 22-28-5.
Location abd.

S. R. McCorkle et al's No. 1 Smith, SW cor. Sec. 6-26-4.
S.D. 457 ft.

KINGFISHER COUNTY

Black Gold Oil Co.'s No. 1 Cole, C SW NE Sec. 24-18-5w.
Drlg. 5,680 ft.

LINCOLN COUNTY

Tom Bennett et a's No. 1 Bolby, C SE SW Sec. 27-12-2.
Cored 5,065-81 ft.; S.D. for csg.

Derrickson and Reserve Pet. Co.'s No. 1 Law, SE SW NE Sec. 25-14-3.
Location abd.

Chester L. Carlock's No. 1 Young, C N½ NW NW Sec. 23-15-5.
Rig.

Sinclair Prairie Oil Co.'s No. 1 Hoyt, NW SW NE Sec. 5-14-3.
Wilcox sand 5,062-71 ft.; shot at 5,047-71 ft.; swbd. 105 bbls. in 22 hrs.

Slick-Urschel's No. 1 Miller, NW SE Sec. 25-15-3.
Location.

LOGAN COUNTY

Helmerich-Payne et al's No. 1 Sturgis, SE NW Sec. 1-15-2w.
First Wilcox 6,044 ft.; drlg. 6,127 ft.

Shell Pet. Corp. et al's No. 1 Hirsel, SE SW SW Sec. 7-16-2w.
Oswego at 5,230 ft.; drlg. 5,235 ft.

Sinclair Prairie and Slick-Urschel's No. 1 Koatsch, SW cor. Sec. 23-15-3w.
Rigging up.

Sinclair Prairie Oil Co. et al's No. 1 Dunbar, Sec. 25-15-4w.
Wilcox 6,890 ft.; dry and abd.

Sinclair Prairie Oil Co. et al's No. 1 School Land, SE cor. Sec. 36-17-1w.
Simpson dense 5,255 ft., T.D.; waiting for pipe line connection.

Slick-Urschel et al's No. 1 Pennington, C SW NE Sec. 10-16-1w.
T.D. 144 ft.

J. C. Schaffer et al's No. 1 Watson, C NW NE Sec. 15-15-4w.
Building rig.

McCLAIN COUNTY

C. W. James et al's No. 1 Neal, C NW SE SW Sec. 4-5-3.
Hunton 3,335-37 ft.; running 8-in. csg.

NOBLE COUNTY

Marathon Oil Co.'s No. 1 Gilbert, NE cor. Sec. 24-22-2.
Wilcox sand 4,449 ft.; T.D. 4,480 ft.; flowed 392 bbls. in 21 hrs. after shut in 47 hrs.; S.D.

OKFUSKEE COUNTY

Amerada Pet. Corp.'s No. 1 Jaynes, NW NW SW Sec. 20-10-10.
Sand 3,935-53 ft.; 30,000,000 ft. of gas; killed gas; set 8-in. 2,940 ft.

Mid-Continent Pet. Corp.'s No. 1 Haney, SW SE NE Sec. 24-12-8.
Set 8-in. 3,957 ft.; Hunton 3,959 ft.; T.D. 3,962 ft.

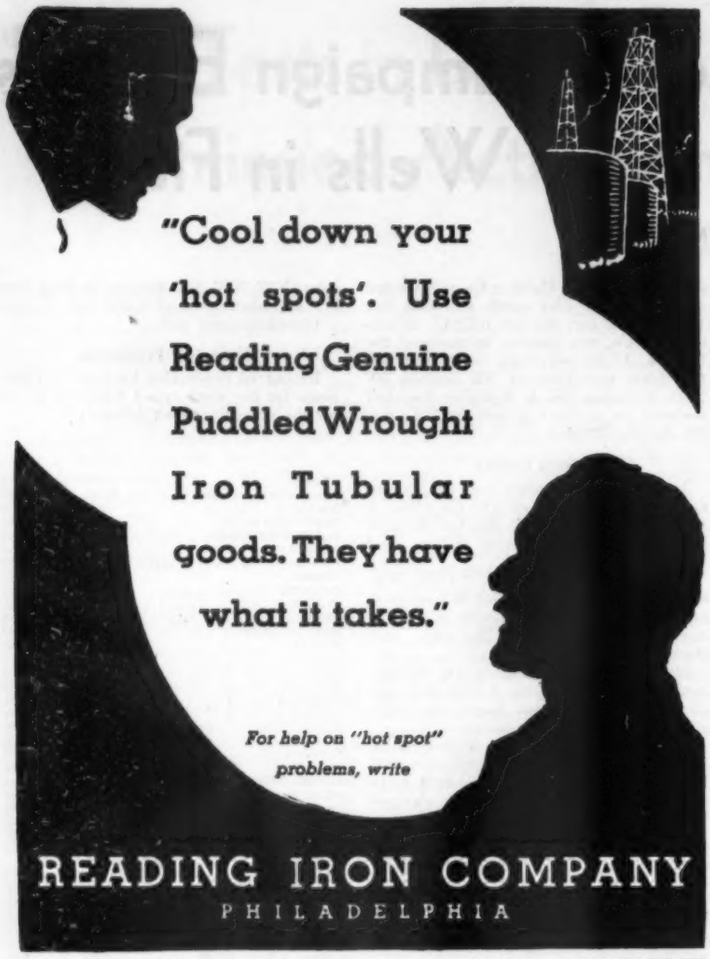
OKLAHOMA COUNTY

W. H. Atkinson et al's No. 1 Reed, NE cor. Sec. 4-12-3w.
Building rig.

Anderson & Kerr et al's No. 1 Linn, SW NW Sec. 17-14-2w.
Location.

R. Carl Larkin's No. 1 Brobine, NW NW NE Sec. 33-13-5w.
Rig and pits.

(Continued on Next Page)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and plugging back to 3,265 feet did not help.

Mid-Continent Petroleum Co.'s No. 2 Schroeder, NW NE NE Section 6-6-5, deepened to Wilcox sand at 4,203-09 feet, swabbed 245 bbls. of oil in 24 hours.

Gypsy Oil Co.'s No. 1 Grayson, SW SW NW Section 13-6-5, was completed in dolomite topped at 3,745 feet, total depth 3,816½ feet. It pumped 519 bbls. of oil in 24 hours. Same company has rig up for No. 1 Factor, NE NE SE Section 14-6-5.

Pittsburg County

Utilities Production Co. has a 13,000,000-foot gasser in No. 2 Bascom, SE SW SE Section 10-7-18, Pittsburg County, which had been deepened from 1,895 to 1,965 feet. It was completed.

Travis Petroleum Co.'s No. 1 Lucas, NW NE SW Section 36-12-3w, was shot with 40 quarts at 6,400-30 feet and flowed by heads into pits the production estimated between 250 and 300 bbls. per day.

Grady County

Oklahoma Utilities Co.'s No. 16 Farwell, NW SE NE Section 26-5-8w, Grady County, is a 1,000,000-foot gasser at 3,088-3,155 feet. It was completed. Same company was drilling at 1,850 feet in No. 18 Farwell, NW SW NE Section 26-5-8w.

Beckham County

Coogan and others were cementing pipe at 735 feet in No. 1 Shelton, in Section 33-10-25w, Beckham County.

Caddo County

English Drilling Co.'s No. 1 Wagner, NE NE SW Section 12-5-9w, Caddo County, was dry and abandoned at 3,502 feet.

Garvin County

Carter Oil Co. and T. H. McCasland, made a location for No. 7 White Eagle, NW cor. SW Section 27-3-5w.

Okfuskee County

R. C. Walker's No. 1-A, 1,220 feet from north and 660 feet from west lines of NE Section 3-11-11, Okfuskee County, was abandoned at 2,915 feet. It was a hole full of water at 2,880-85 feet.

Carter County

Skelly Oil Co. completed No. 4 Moore,

Wildcat Operations in Oklahoma

(Continued from Preceding Page)

J. C. Shaffer et al's No. 1 Bullard, SW cor. Sec. 13-13-3w; (Wilcox test). Wilcox 6,525 ft.; T.D. 6,542 ft.; dry and abd.
Springrose Drlg. Co.'s No. 1 Edwards, C SE Sec. 19-11-1. T.D. 6,540 ft.; P.B. to 5,500 ft.

OSAGE COUNTY

Peters Pet. Co. and Norbla Oil Co.'s No. 1, SW cor. Sec. 15-25-5. S.D. at 3,134 ft.

PAYNE COUNTY

Marathon Oil Co.'s No. 1 Potts, C SW SW Sec. 27-19-2. Sand 4,907 ft.; cored 4,910-14 ft.; drlg. 4,917 ft.

PITTSBURG COUNTY

McAllister Pet. Corp. et al's No. 1 Chunn, C SE NW Sec. 29-4-14. T.D. 1,530 ft.; pipe collapsed; S.D.
P. H. Gray et al's No. 1 Lee, NW SE Sec. 12-5-12. Drlg. 810 ft.

PONTOTOC COUNTY

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-3-6. S.D. 2,920 ft.
Mudge O. & G. Co.'s No. 1 Clampett, SW NW NW Sec. 10-2-6. Sylvan 140 ft.; Viola 285-379 ft., T.D.; drlg. 379 ft.
Paramount Oil Co.'s No. 1 Graham, SW SE SW Sec. 13-1-7. Drlg. 2,655 ft.
Gillett & Kroeger's No. 1 Robbins, NE SE Sec. 31-1-4. Machine.
Gillette & Kroeger's No. 1 Duver, NW SE Sec. 36-1n-6e. S.D. 1,000 ft.
H. M. Marcum's No. 1 Magnuson, SW SE SE Sec. 23-2-7. 6-in. csg. 1,752 ft.; T.D. 1,755 ft.
J. D. Sledge and Jack Lynch's No. 1-A (twin) Thompson, SW NE SW Sec. 1-1n-7e. Bromide at 4,503 ft.; first sand at 4,585-4,605 ft.; broken sand 4,605-26 ft.; second sand at 4,647-56 ft.; hole filled 500 ft. with wtr.; P.B. to 4,560 ft.
Southern Oil Corp.'s No. 1 Ladd, C NW NW Sec. 27-3-7. Drlg. 2,023 ft.; in Viola.
Southern Oil Co.'s No. 1 Walker, NW NW SW Sec. 11-4-6. Sand 785-816 ft.; 3,000,000 ft. of gas; S.D. 820 ft.

PUSHMATAHA COUNTY

Whitehead Drlg. Co. et al's No. 1 Messer, SE SW SW Sec. 35-3s-13e (O.W.D.D.). 8-in. 2,595 ft.; sand 2,660-80 ft.; S.D. 2,490 ft.

SEMINOLE COUNTY

Atlantic Oil Prod. Co. et al's No. 1-A Thompson (community test), SW SE SE Sec. 15-11-8. T.D. 3,800 ft.; drill pipe stuck.
Ray Dorris and J. T. Hall's No. 1 Dorris, SE SE SW Sec. 31-10-7. S.D. 221 ft.
Crabtree Drlg. Co.'s No. 1 Chandler, NE SE SW Sec. 4-5-6. Spudding.
Harris and Haun's No. 1 Harjo, NE SE NW Sec. 11-6-6; (O.W.P.B.). P.B. to 2,115 ft.; H.F.W.; S.D.
Gypsy Oil Co.'s No. 1 Grayson, SW NW Sec. 13-6-5. Simpson dolomite 3,745-3,804 ft.; swbd. 497 bbls. in 16¼ hrs.; drilled to 3,809 ft.; cored to 3,816½ ft.; pumped 519 bbls. in 24 hrs.; completed.
Verser & Clay et al's No. 1 Thomas, NE SE NW Sec. 1-6-6. S.D. at 2,302 ft.
Wofford Drlg. Co. et al's No. 1 Abbott, NE cor. Sec. 33-8-7. Drlg. 1,910 ft.
Wofford Drlg. Co. et al's No. 1 Thomas, NW SE Sec. 8-6-7. Drlg. 2,755 ft.

TEXAS COUNTY (PANHANDLE)

Ben F. Ash et al's No. 1 Guymon Townsite, C NE SE Sec. 30-3n-15e; (Cimarron Meridian). T.D. 2,420 ft.; fishing for drill pipe.

WASHITA COUNTY

Okla.-Midwestern Oil Co.'s No. 1 Dock, SW cor. Sec. 21-8-18w. T.D. 2,430 ft.; lost tools in hole; rig rebuilt; S.D.
Anadarko Basin Oil Co.'s No. 1 Wolf, NE SW Sec. 23-9-17w. Rigged up and S.D.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Brookshire et al's No. 1 Rowland, NW NE NE Sec. 18-3-16. H.F.W. 3,844 ft.; test shallow sand.
Malernee et al's No 1 D. O. K. Land Co., C SE SE Sec. 36-2s-13. S.D. 3,115 ft.

BRYAN COUNTY

C. R. Welch's No. 1 Collins, SW cor. NE NE SE Sec. 19-8s-8e. Moving in large machine.

COMANCHE COUNTY

H. W. Baker's No. 1 Miller, SE SW SE NE Sec. 22-2-13w. Drlg. 115 ft.
Oscar Jones' No. 1-A Sheets, NE SW Sec. 36-3-10w. Machine.
Henry Rosenthal et al's No. 1 Au-Chi-Ra-Ah, NW cor. Sec. 5-1-3w. Drlg. 240 ft.
F. F. Stevens' No. 1 Green, SE SW Sec. 2-1-12w. S.D. 1,250 ft.; contract depth.
Heiden & Taylor's No. 2 Crutcher, C NE Sec. 11-1n-12w. S.D. at 860 ft.

JACKSON COUNTY

Associated Oil Co.'s No. 1 Harrell, NE SW Sec. 13-1-21w. Spudded and S.D.
Burk Royalty Co.'s No. 1 Gore, SE NW SE Sec. 3-1s-20w. S.D. at 1,909 ft.
Gypsy Oil Co.'s No. 1 Stokes, SE NW SW Sec. 11-1-20w. Lime 1,709-11 ft.; T.D. 1,722 ft.; S.D.
Palo Duro Oil Co.'s No. 1 Balum, SW SW SE Sec. 16-2-21w. Drlg. 40 ft.
Petroleum Prod. Co.'s No. 1 Cole, SW SE Sec. 34-2-20w. Lime 1,068-75 ft., T.D.; U.R. 8¼-in. csg.
Selby Oil Co.'s No. 1 Holt, SE SW Sec. 15-2-20w. Drlg. 635 ft.
D. Scheig's No. 1 James, NE cor. Sec. 21-1-20w. Granite wash 1,133-38 ft.; drlg. 1,250 ft.
D. Scheig et al's No. 1 Cole, NE SE SE Sec. 5-1n-20w. Rigging up.
Whatley & Whatley's No. 1 Holt, NW SW SE Sec. 20-1n-20w. T.D. 858 ft.; in red beds; fishing.

JOHNSTON COUNTY

W. A. Delaney et al's No. 1 Diamond, NW NE SE Sec. 5-1s-8. Drlg. 2,100 ft.

MARSHALL COUNTY

Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e. Drlg. 5,004 ft.

McCURTAIN COUNTY

J. V. Scrivener et al's No. 1, NE SW SW Sec. 24-6s-21. Machine.

MURRAY COUNTY

Equitable O. & G. Co.'s No. 1 Scott, CSL N½ NW SW Sec. 15-1s-3. Sand 427-42 ft.; lowering 10-in. csg.
Manahan et al's No. 1 Ward, NE SE NW Sec. 18-1s-3; (Wilcox sand test). Spudded.
C. P. Williams et al's No. 1 Singleterry, SE SW NW Sec. 25-2s-3e. T.D. 743 ft.; S.D.

STEPHENS COUNTY

J. W. Madison's No. 1 Tussey, SW SE NW Sec. 24-1n-4w. Rig down, drill pipe in hole; T.D. 3,220 ft.

NE SE NW Section 11-2s-2w, Carter County, which flowed 180 bbls. in 12 hours from sand series at 1,423-2,580 feet.

Oklahoma County

W. H. Atkinson and others had rig built for No. 1 Reed, NE NE NE Section 4-12-3w, Oklahoma County, a wildcat, and Sinclair Prairie Oil Co. set 15-inch pipe at 387 feet in No. 1 Franklin (community block), SE NW SE Section 21-10-2w, in Cleveland County, another wildcat.

Continental Oil Co. set 12½-inch casing at 593 feet in No. 1 Young, SE SE NW Section 31-14-3w, in the Edmond district, Oklahoma County, and Marathon Oil Co.'s No. 3 Dahl, NW NW SE Section 31-14-3w, had 12½-inch casing set at 616 feet and was drilling below 800 feet.

Garfield County

Herndon Drilling Co. has a rig up for a wildcat, No. 1 Allen, NE NE SW Section 35-24-3w, 2½ miles northeast of the old Barnes Pool in Garfield County.

Logan County

Carter Oil Co. and Gypsy Oil Co. made a location for No. 4 Herren, C NW NE Section 28-17-4w, in the Crescent Pool in Logan County.

Murray County

Equitable Gas Co. has cellar dug for a wildcat in Murray County, No. 1 Baer, SW NW NW Section 21-1s-3e.

Marshall County

G. L. Priest completed a 10-bbl. well at 525-39 feet in No. 2 Cope-Sublett, NW SE NW Section 1-8s-1e. F. H. E. Oil Co.'s No. 2 Snell, NW cor. Section 31-7s-6e, is a 10-bbl. completion at 506-12 feet.

Stephens County

Mudge Oil Co.'s No. 2 Stephens, NE NE SW Section 16-1s-5w, was dry and abandoned at 1,164 feet.

Bishop Oil Co. was drilling at 100 feet in No. 1-B Parker, NE NE SE Section 11-2s-8w, Stephens County.

H. C. McLaughlin's No. 2 Gann, NW NE SE NW Section 31-2-4w, is an 8-bbl. completion at 934-50 feet.

Crain & Rankin completed No. 5 Brown, NW NW NE Section 23-1s-9w, Stephens County, a 25-bbl. pumper at 2,211-26 feet.

Ashcroft & Palmer were drilling at 100 feet in No. 1, SW SE NW Section 28-2-10w.

Creek County

Completions in Creek County include the following wells and their initial production:

Big Four Petroleum Co.'s No. 1 Hope, NW SW SW Section 35-19-8, Red Fork sand at 2,590-2,626 feet, shot, pumped 35 bbls.

F. O. Akin's No. 2 Harry, SE NE SW Section 35-18-8, sand at 1,579-1,606 feet, shot, swabbed 35 bbls.

L. B. Jackson's No. 1 Bear, SW cor. SE Section 35-18-8, Jones sand at 1,558-82 feet, shot, pumped 75 bbls.

Bay State Oil Co.'s No. 5 Tiger, NE NE SW Section 3-17-8. Layton sand at 1,380-1,419 feet, shot, swabbed and flowed 125 bbls.

J. E. Crosbie's No. 7 B. Cosey, SE cor. NW SE Section 3-17-8, Layton sand at 1,320-52 feet, swabbed 75 bbls.

C. W. Titus' No. 7 Cosey A, NE SW SE Section 3-17-8. Layton sand at 1,295-1,323 feet, shot, pumped 25 bbls.

Slyman and others' No. 1 Hendrickson, N SW NW NW Section 4-17-8, dry and abandoned at 1,486 feet.

F. O. Akin's No. 1 Buckner, SE NW SE Section 9-17-8, Layton sands at 1,380-1,405 feet and 1,455-1,487 feet, Bartlesville sand at 2,804-42 feet, plugged back to 1,417 feet and shot at 1,384-1,410 feet, pumped 30 bbls. of oil and 40 bbls. of water.

A. J. Whitefield's No. 1 James, NW SE SW Section 9-17-8, dry and abandoned at 2,832 feet. Layton, Red Fork, Bartlesville, Oswego and Peru formations were all barren.

Doke & Hughes' No. 6 F. Watson, C W half NW NW Section 10-17-8, Layton sand at 1,399-1,433 feet, flowed 80 bbls.

Bryan Petroleum Co.'s No. 1 Wilson, SE NW NE Section 21-15-8, dry and abandoned at 2,886 feet.

New work includes Big Four Petroleum Co.'s No. 1 Swart, SW NW SW Section 35-19-8, drilling at 600 feet; Deep Rock Oil Co.'s No. 13 McQuarria, NE NW SE Section 7-18-7, old well deepening, top of Arbuckle Lime 2,460 feet; total depth 2,502 feet; Dot Oil Co.'s No. 9 Yarhola, SW SW NW Section 8-18-7, deepening, will set 5-inch casing at 2,635 feet; W. C. McBride, Inc.'s No. 30, SW cor. Section 8-18-7, Bartlesville sand at 2,332-62 feet, acidized and waiting; F. O. Akin's No. 3 Harry, SE SE SW Section 35-18-8, location; L. B. Jackson's No. 2 Bear, NW NE SE Section 35-18-8, location; F. O. Akin's No. 3 Kelly, NE NE NW Section 2-17-8, location; L. B. Jackson's No. 1 Nolan, NW NW NE Section 2-17-8, machine; Bay State Oil Co.'s No. 5 Lasley, was drilled to 1,875 feet and plugged back to 1,431 feet, where it had a showing at 1,403-31 feet; Magnolia Petroleum Co.'s No. 10 fee, SW NW NE Section 3-17-8, rigged up; Bay State Oil Co.'s No. 4 Harmon, C E half NE NE Section 9-17-8, drilling at 460 feet; Billingslea and others' No. 1-A Morrison, SW SE NE Section 25-17-8, drilling at 475 feet; Jackson & Wise' No. 2 Taylor, NE SE NE Section 3-17-10, drilling at 360 feet. Anderson & Kerr, Inc.'s No. 1 J. Harjo, NE NW NW Section 25-14-10, rigging up machine.

Gulf Coast Fields

(Continued from Page 59)

Misere Land Co. for a reported consideration of $833 for rights to the leases until April 10, when $1 an acre will be paid for an additional year. The acreage takes in all of Sections 1, 2 and 3 and parts of Sections 10, 11, 12 and 13 in Township 13-6w.

Stanolind Oil & Gas Co. is reported to have taken an option on 3,558 acres of royalty, south of Haynes on the Lacassine Bayou. The acreage is west of the bayou and partly in Jefferson Davis Parish and partly in Cameron Parish. The royalty under option belongs to Fontenot whose acreage is under lease to the Shell Petroleum Corp. The acreage involved is in Township 11s-5w, and the northwestern part of Township 12s-5w.

On the Crowley Prospect, Acadia Parish, Humble Oil & Refining Co.'s No. 1 American Rice Mills, a wildcat in Section 27-10s-1e, reached the 8,000-foot marker, when it drilled below 8,009 feet in shale. Several showings of oil and gas have been reported, but have not been important enough to cement casing.

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Largest Producer in Five Months Completed as Michigan Breaks All-Time Production Record

By PAUL A. ELLIOTT
Staff Correspondent, Michigan Fields

MUSKEGON, Mich., Feb. 11.—The past week was a period of momentous new developments in Michigan oil fields with reports of oil production breaking an all-time record, completion of the biggest new producer in five months and the announcement of a radically new system of proration and allowable production.

For the first time in the State's 10-year history as an oil-producing area monthly production exceeded a million barrels, reaching 1,040,544 bbls. A new weekly production record of 252,588 bbls. also was set during the period ended Saturday, February 2. Average daily production at 36,084 bbls. for the same period also exceeded the previous all-time record established during May, 1934, when the average reached 35,156 bbls. a day for a single week. The previous monthly record also was set during May, 1934, with a total of 984,341 bbls. exceeded last week by more than 50,000 bbls.

The peak day for the period and for the entire oil history of the State was Wednesday, January 30, when 39,623 bbls. represented the aggregate runs from 12 recognized pools.

Although virtually every major pool registered an increase contributing to the new records, the Porter Township Pool in Midland County, Michigan's record producing area for the past two years, averaged 26,604 bbls. a day and reached a daily peak of 31,894 bbls. on the record day of January 30. The Porter and adjoining Yost Pools in Porter and Jasper Townships, Midland County, also produced a record combined total of 800,930 bbls. during January.

Average daily production for the first month of the new year following a record total of about 10,600,000 bbls. set in 1934 was 33,565 bbls., or 1,040,544 bbls. for the single month.

January production by fields was as follows:

Pool—	Dy. av.	Total
Porter-Yost	25,836	800,930
Greendale	3,554	110,178
Vernon-Leaton	2,670	82,778
Montcalm	276	8,548
Ogemaw	673	20,865
Saginaw-Lapeer	119	3,680
Muskegon	271	8,404
Oceana	166	5,161

Actual production figures for the week ending February 2 compared to the output for the previous week were as follows:

Pool—	Week of Jan. 26	Week of Feb. 2
Porter	25,691	26,604
Yost	1,366	1,751
Greendale	3,474	3,554
Vernon-Leaton	2,476	2,670
Montcalm	385	276
Beaverton	10	0
Ogemaw	673	673
Saginaw	104	104
Lapeer	20	15
Muskegon	271	271
Oceana	166	168
Total	34,636	36,084

New System of Proration

In the face of this new record production, Michigan Producers Proration Committee placed in effect a new system of proration almost certain to result in further increases during February.

Peak production is attributed to the unprecedented demand for Michigan crude, most of which was marketed within the State to refineries of increased capacity. New markets which have opened up during the past few weeks taxed the capacity of all pipe lines in the State and are expected to maintain a demand well above the February federal allowable of 30,000 bbls. a day.

Replacing a potential system based on the open flow capacity of wells during a three-hour test, a new method termed a "normal producing basis" has been adopted by the committee. The immediate result was the reduction from a state "potential" of 139,062 bbls. a day as of January 1 to a "pressure production" total of 46,250 bbls. a day, or less than 10,000 bbls. above estimated daily runs for February at 36,646 bbls. a day.

Varied explanations for the new system were given by James C. Graves, chairman of the Michigan Producers' Proration Committee, by A. J. Weideman, assistant umpire of the committee, and by individual operators.

Independent operators without hesitation said the figures which have been issued from month to month during the past year, reaching a high point of 180,436 bbls. as of July 1, 1934, were "padded" and far in excess of actual possible production.

Assistant Umpire Weideman, speaking also for State Umpire O. H. White, declared "it is the committee's desire to rate wells on a strictly day in and day out producing basis. In short, we want to know in Michigan just how many barrels we can furnish right along for the market.

"So far we are the only state to do this," he continued. "Others still maintain the potential system. It is our firm conviction if all other states under proration would use a method to determine just how much oil could be depended upon over the life of a field, that is the production figure which would be used.

"Multiplying a few hours potential to obtain the possible production results in a figure which is not only fictitious but one which is misleading and unreliable both from the standpoint of the consumer depending upon this figure for his oil and also the operator in estimating his actual reserves.

"We contend as soon as all oil producing states adopt a system of knowing and working under the actual normal production, improvement in the oil situation from a marketing standpoint will result. Under the present potential system drilling and crude oil prices are being held back through a mistaken belief that tremendous amounts of oil are immediately available for the market. There is, no doubt, some excess but the point is to determine exactly what it amounts to."

Illustrating his point, Mr. Weideman pointed to the Pure Oil Co.'s No. 3 Peek, largest new producer of the past week, which would have been rated at more than 10,000 bbls. a day under the old potential system but under the new schedule of pressure production has been rated at only 2,000 bbls. and will probably be produced at not more than 1,200 bbls. a day.

Explains Action

Mr. Graves, chairman of the proration committee, issued the following letter to all producers explaining the action of the committee at its last meeting as follows:

"Due to heavier withdrawals of crude oil from the Porter area and of brine encroachment in portions of the field, it has been found necessary to alter the method of potential taking, and it has been found possible to remove certain of the previous rulings which have been applied to this field, as follows:

"1. After this date and until further notice, tests will be taken on actual and/or normal producing basis. All wells above a specified flat allowable shall be rated on a production basis, rather than on potentials as have been previously taken. That is, well to be tested shall be produced over a 7 to 10-day period, at a rate of normal and safe production, according to the operator, having in view the maximum ultimate recovery from the area, and this figure shall be used as the well's potential, or correctly, its production.

"2. Fifteen-day shut-in rule is no longer necessary and is hereby suspended, production being permitted subsequent to this date immediately upon the well being drilled in.

"3. All acid rules, not only those restricting the acidizing of wells over 100 bbls. production, but those permitting nonacidized wells to take the potential of the acidized offsets, are suspended as of this date.

"4. Specified flat allowable of all fields in the State shall be 75 bbls. per well. The percentage of taking above flat allowable, on prorated wells, as of February 1 shall be 50 per cent.

"5. Present market conditions permit the handling at this date of all the crude oil which can be safely produced under proper working pressures. Therefore, all over and under run balances, on all leases produced under proration of this date, are hereby canceled."

Schedule of Estimates

Under the new system with a "pressure production" total of 46,250 bbls. a day and other rulings cited in the above letter, the following schedule of daily estimates was announced as of February 1:

Pool—	Wells	Pres. prod.	Est. runs
Porter	287	36,699	26,945
Yost	17	2,818	1,968
Greendale	302	3,554	3,554
Vernon-Leaton	83	2,670	2,670
Montcalm	3	276	276
Beaverton	1	10	10
Ogemaw	31	673	673
Saginaw-Lapeer	101	113	113
Muskegon	130	271	271
Oceana	18	166	166
Total	973	46,250	36,646

It will be seen in a glance at the above table that the Porter and Yost Pools are the only ones in which any wells will be restricted in flow to less than their estimated normal, or "pressure production." In these pools comparatively few of the larger wells will be restricted by proration.

Whether the new system will work out satisfactorily or will result in too great production resulting in more rapid water encroachment in the big pools is yet to be determined by actual operations under the system. Operators not only in Michigan but in other oil states are expected to watch with interest the attempt of the Michigan Proration Committee to place production on a more sound basis, crediting wells with their actual rather than a fictitious potential.

With practical and available production rated less than 10,000 bbls. a day above the present market demand, new drilling in proved and wildcat areas is predicted.

Completions During the Week

Based on the old potential system, 14 new completions in Michigan during the past week added more than 10,000 bbls. of new initial oil production and included one small new gasser, one dry hole and three abandoned projects.

These developments were scattered throughout the State in eight different fields, principally in proved fields but including two wildcats.

The largest new oil well of the week was the Pure Oil Co.'s No. 3 Harry Peek, SW SE NW Section 16-13n-1w, on the outer edge of the Porter Township, Midland County, Pool. It made 342 bbls. in the first 45 minutes, 600 bbls. during the first two hours and produced 1,120 bbls. through a quarter-inch choke installed for the second 24 hours.

Under the new "pressure production" system it was rated at 2,000 bbls., compared with more than 10,000 bbls. under the former potential system. It is the biggest well completed in Michigan in five months and is expected to result in further drilling in the N half of Section 16, as yet largely undrilled. It is a mile northeast of Pure's A No. 2 Hoyt well, which came in as one of the major producers in the pool several months ago, and is 1 mile north of the Davis Oil Co.'s No. 1 Herman Neitzke in Section 21, Porter Township, the largest completion in 1934 at a rated potential of 14,497 bbls. a day.

Under the new proration system of 75 bbls. exemption and 50 per cent for all above the minimum, it will be allowed to make 1,037.5 bbls. a day.

Joseph Trever's No. 1 Mrs. F. Forbes, SW SW SW Section 22-13n-1w, also Porter Township, struck a flow of about 100 bbls. a day in the upper Traverse formation from 2,910-50 feet when drilling operations were suspended for testing before continuing to the Dundee.

Columbia Oil & Gas Co.'s No. 1 Friend Henry Northrup brought in about a month ago in Section 19, Porter Township, was plugged and abandoned after acid treatment failed to make commercial production in the Dundee at 3,452 feet. The hole filled up about 400 feet when it was drilled in.

Greendale-Midland

A small well making about 15 bbls. a day naturally developed when Pure drilled in its C No. 6 Glenn M. Reem, SW NW SE Section 7-14n-2w, Greendale Township, Midland County, at about 3,560 feet. It will be treated with acid.

The Mon-Mar Oil Co.'s No. 1 Emmett Scott, drilled into the Dundee several weeks ago in Section 8, Greendale Township, was increased from 30 bbls. natural to 150 bbls. a day by acid treatment.

Ogemaw County

The Muskegon Development Co.'s No. 1 Cora F. Barber, SW SW NW Section 28-22n-2e, West Branch Township, Ogemaw County, made about 60 bbls. a day after acid treatment in the Dundee topped at 2,526 feet and drilled to 2,700 feet.

McClanahan Oil Co.'s No. 2 O. A. Guilford, NW NE NW Section 29, same township, reported 1,000 feet of oil in the hole after drilling to 2,725 feet, and probably will be finished this week.

The McClanahan company also temporarily abandoned its No. 1 Buffalo Land Co. test, located NE SE NW Section 7-21n-3e, Mills Township, Ogemaw County, at 1,350 feet.

Thompson Brothers completed drilling at 2,723 feet in W. J. Sovereign's No. 1 Golf Club, SE SW SW Section 20, and were treating with acid. J. C. Arthurs cemented casing at 2,575 feet on top of the Dundee in the Ide Oil & Gas Co.'s No. 1 Harry Shubert, SE SE NW Section 19, same township, and was expected to drill in this week.

Gordon Oil Co.'s No. 1 J. Brisboy, C NW SE Section 8-13n-7w, Millbrook Township, Mecosta County, was plugged and abandoned at 1,710 feet when formations were running low after failure

(Continued on Page 81)

10 YEARS IN REVIEW

EXTENSIVE SHOPS
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An interesting booklet, titled "A Decade of Progress," will soon be off the press. May we reserve a copy for you?

HALLIBURTON OIL WELL CEMENTING CO.

DUNCAN, OKLAHOMA

Big Wells in Flush Pools and Many Prospective Operations Reported From Central Kansas

By JAMES McINTYRE

The Haury-Burrton Pool continues to supply the biggest initial producing wells in the Kansas fields, and the past week's record shows completions of large potential production.

The week's reports from Kansas indicate a large number of prospective operations, well scattered through the State, some of them in wildcat territory.

Six of the wells reported this week from the Haury-Burrton Pool showed an average production of 3,222 bbls. per well in 24-hour tests. A late well reported just at the close of this review, Olson Oil Co. and Shell Petroleum Corp.'s No. 4 Blake, SW SE SW Section 23-23-4w, Reno County, which just topped the Hunton lime at 3,608 feet. The well started flowing at the rate of 180 bbls. per hour.

Estimated Production

Estimated daily average production of Kansas for the week ended February 9 and for the preceding week follows:

	Barrels	
	Feb. 9	Feb. 2
Haury-Burrton	19,200	20,575
Hollow	5,575	6,400
Ritz-Canton	9,800	9,425
Voshell	5,450	5,675
Johnson	2,450	2,480
Nikkell	6,025	6,075
Sedgwick County	9,700	9,175
Ellsworth County	4,186	1,492
Barton County	1,738	1,621
Rice County	17,979	18,342
Ellis County	536	291
Kingman County	752	975
Stafford County	1,221	1,352
Russell County	11,575	10,222
Greenwood County	10,900	11,000
Butler County	18,925	18,950
Other pools	13,388	12,675
Total Kansas	139,700	137,225

Reno County

In the Haury-Burrton Pool, Olson Oil Co. and Shell Petroleum Corp.'s No. 3 Downie, SW SE NE Section 14-23-4w, was completed in Hunton lime at 3,597-3,606 feet. It was acidized and pumped and flowed 4,789 bbls. of oil in 24 hours. It had pumped and flowed 2,468 bbls. in 24 hours before being acidized.

Amerada Petroleum Corp. completed No. 2 Wilson, NE SW SW Section 23-23-4w. It was acidized in Hunton at 3,596-3,606 feet and pumped and flowed 3,397 bbls. in 24 hours and was reacidized with a heavier dose and produced 4,355 bbls. in 24 hours, pumping and flowing.

Marathon Oil Co.'s No. 1 Vansickle, NE NE NW Section 23-23-4w, was given three acid treatments in Hunton lime at 3,591-3,604 and 3,591-3,607 feet before it was completed. The first treatment brought up 1,904 bbls. in 24 hours, flowing; the second 62 bbls. per hour, flowing; and the third 2,815 bbls., pumping and flowing.

Bradley and others have cellar dug for No. 1 Olmstead, SW SW SW Section 22-22-7w, a wildcat location in Reno County. Marathon Oil Co. has cellar dug for No. 4 Van Sickle, SE NE NW Section 23-23-4w. Gypsy Oil Co. was building rig for No. 1 Myers, NE NE NW Section 3-24-4w.

Barnsdall Oil Co.'s No. 6 Sabin C, SE cor. Section 11-23-4w, was acidized in Hunton lime at 3,610-28 feet and pumped and flowed 2,118 bbls. in 24 hours. It was reacidized.

Gypsy Oil Co. and Empire Oil & Refining Co.'s No. 1 Sabin, SW cor. Section 13-23-4w, was treated with acid in Hunton at 3,611-12 feet and made 54 bbls. of oil and 1,371 bbls. of water in 24 hours.

Olson Oil Co. and Shell Petroleum Corp.'s No. 2 Harner, SE SE SW Section 14-23-4w, pumped 1,192 bbls. of oil in 24 hours from Hunton at 3,593-3,611 feet. It had not yet been treated with acid.

Olson Oil Co. and Shell Petroleum Corp.'s No. 1 Krehbiel B, NE NW NW Section 26-23-4w, had Hunton lime at 3,587-99 feet. It flowed 4,067 bbls. of oil initially but was not yet a completion.

Rice County

Sinclair Prairie Oil Co.'s No. 2 Volkland, SW SE SE Section 20-19-9w, Rice County, was completed. It pumped 949 bbls. after an acid treatment in Siliceous lime at 3,202-23 feet. It had pumped 664 bbls. in 24 hours before it was acidized.

Phillips Petroleum Co.'s No. 2 Link, NW NW SW Section 21-19-9w, was completed in Siliceous lime at 3,212-48 feet. An acid treatment brought out a 463-bbl. production on the pump.

Gypsy Oil Co.'s No. 7 Christopher, C W half W half NE Section 6-20-9w, pumped 1,442 bbls. of oil and 27 bbls. of water in 24 hours from Siliceous lime at 3,245-50 feet and was completed.

Slick, Pryor & Lockhart abandoned the location for No. 7 Schurr, C SE NW SW Section 21-20-10w. Ponds had been dug. No. 8 Schurr, C SE NE SW Section 21, was a hole full of water from Siliceous lime at 3,319-29 feet. There was an oil showing at 3,322 feet but the water broke in at 3,329 feet.

Roy Ramsey's No. 2 Hilton, SE NE SW Section 6-20-9w, pumped 110 bbls. in 24 hours following an acid treatment in Siliceous lime at 3,293-3,305 feet.

C. B. Davis and Gypsy Oil Co.'s No. 1 Duesser, C W half NE SW Section 31-19-10w, found Siliceous lime at 3,272-85 feet and the hole filled 3,100 feet with oil in 25 minutes.

Phillips Petroleum Co.'s No. 3 Link, SE NW SW Section 21-19-9w, swabbed 122 bbls. of oil in eight hours from Siliceous lime at 3,201-20 feet.

Locations have been made for Empire Oil & Refining Co.'s No. 3 Grove, SE SW NE Section 29-19-9w; No. 4 Grove, NE SW NE Section 29-19-9w; Sinclair Prairie Oil Co.'s No. 2 Wallace, SE NE SW Section 29-19-9w, and No. 3 Wallace, SW SW SW Section 29-19-9w; Empire Oil & Refining Co.'s No. 3 Proffitt, SW NW SE Section 6-20-9w; Sinclair Prairie Oil Co.'s No. 2 Sharp, NW NW NE Section 7-20-9w.

Barton County

Stanolind Oil & Gas Co.'s No. 2 Jutting, C NW NW Section 15-20-11w, Barton County, was acidized in Siliceous lime at 3,322-24 feet, but yielded only 8 bbls. initially. It was completed at a total depth of 3,331 feet. Stanolind Oil & Gas Co.'s No. 1 Harter-C, C SE NW Section 9-20-11w, Barton County, pumped 119 bbls. in 19 hours from Siliceous lime at 3,308-37 feet which had been acidized.

Greenwood County

In Greenwood County, Shaffer & Howell completed No. 1 Sauder, SE SE NE Section 16-23-13e, a 20-bbl. well after a shot in sand at 1,700-06 feet.

Hollis Brothers and others drilled a failure in No. 1-A Jenson, NW NW SE Section 33-23-13. It was acidized at 1,798-1,830 feet but showed little if any oil. Over the line in Woodson County, Elbar Corp.'s No. 3 Figge, SE cor. NE NW SW Section 27-23-14, was dry and abandoned at 1,671 feet.

McPherson County

Shell Petroleum Corp.'s No. 4 Griffin-B, 1,314 feet from north and 330 feet from west lines of NE Section 14-19-2w, McPherson County, had Viola lime at 3,352-55 feet and acidized it. The well was completed after it had pumped 453 bbls. of oil and 120 bbls. of water in 24 hours.

Regina Oil & Gas Co.'s No. 1 Kuhlmyer, C SE SW Section 9-20-1w, McPherson County, was dry and abandoned at 3,470 feet. Wilcox sand, at 3,453-70 feet, showed nothing but water.

Brossier and others were building rig for a wildcat, No. 1 Hanson, NE NE SW Section 15-17-2w, McPherson County. Palmer Oil Corp. had cellar dug for No. 1 Swenson, NE NE SE Section 11-18-3w. Dickey Petroleum Co. was cleaning out No. 1 Gray, NW NW SE Section 2-20-3w, to deepen it from 3,060 feet.

Rush County

Interstate Production Co.'s No. 1 J. B. Mohr-B, C SW Section 10-18-16w, Rush County, is a 44,000,000-foot gasser at 3,477-3,507 feet and was completed as was Marathon Oil Co.'s No. 1 Mohr Account 3, which is a 26,000,000-foot gas completion at 3,477-3,524 feet.

Kingman County

In Kingman County, Skelly Oil Co.'s No. 5 Leisman, NW SW SW Section 20-27-10w, was completed in Kansas City lime at 3,399-3,489 feet. The first dose of acid yielded 50 bbls. in 12 hours, flowing. The second treatment yielded a 137-bbl. production.

Magnolia Petroleum Co.'s No. 1 Bartholomew, SE SE SW Section 30-27-4w, a wildcat in Kingman County, had Chat at 3,694 feet, a show of gas at 3,710-15 feet, 1,800,000 feet of gas at 3,725 feet and was drilling at 3,729 feet.

Scott County

Atlantic Oil Producing Co.'s No. 1 Vaniman, C SE NE Section 15-20-33w, Scott County, far western Kansas, was drilled to 4,701 feet without increasing the production of the well which had pumped 572 bbls. a day from pay in the Mississippi lime, topped at 4,670 feet, which had been acidized.

Ellsworth County

Torry, Feaster and the Gypsy Oil Co.'s No. 1 Kootz, in the new Rolfs Pool in Ellsworth County, was acidized in Siliceous lime at 3,279-95 feet and pumped 60 bbls. of oil and 480 bbls. of water. In the same pool the Texas Co.'s No. 1 Rolfs, NW SW SW Section 13-17-9w, offsetting the discovery well, came in at 1,364 bbls. of oil and 130 bbls. of water from Siliceous lime at 3,209-12½ feet.

Vickers and others were moving in material for No. 1 Janssen, SW SW NW Section 13-17-9w, in the Rolfs Pool in Ellsworth County.

Sedgwick County

In Sedgwick County the Shell Petroleum Corp.'s No. 9 Lygrisse A, NE SW NE Section 15-26-2, was completed in Viola lime at 3,186-88 feet. It was acidized and produced on the pump 1,217 bbls. of oil and 500 bbls. of water.

E. B. Shawver set 10-inch pipe at 80 feet in No. 4 Brookings, SE half SE SW SW Section 16-28-1e.

Cowley County

A. McCoy has cellar dug for No. 1 Brandenburg, SW SW SE Section 17-34-5, a wildcat location in Cowley County, Graylapp & Bess' No. 2 Bishop, SW SE SE Section 13-32-4 (corrected location), is a cellar.

Russell County

Aylward and Skelly Oil Co.'s No. 2 Killian, NE SE NE Section 28-13-14w, Russell County, was completed. Siliceous lime at 3,273-85 feet yielded an 825-bbl. initial production on the pump.

(Continued on Page 86)

Wildcat Operations in Kansas

Week Ended February 9

(Descriptions are East unless marked otherwise)

BARBER COUNTY

Sam Jarvis et al's No. 1 Morrisse, C SE NE Sec. 23-30-10w.
Rig.

Southern Drlg. Co. et al's No. 1 Davis, 330 ft. from W and 330 ft. from S lines of NE Sec 13-34-15w.
S.D. 2,865 ft.

BARTON COUNTY

D. I. Hall et al's No. 1 Arnold, SE SE SW Sec. 19-18-15w.
Rig.

C. L. Price et al's No. 1 Ehrlich, NW SE Sec. 10-16-13w.
T.D. 360 ft.; fishing.

Suppes & Witt's No. 1 Hayes, SW cor. Sec. 6-16-15w.
Location.

Treleaven & Brimm et al's No. 1 Haas, SW cor. Sec. 30-18-15w.
6-in. 2,405 ft.; Reagan sand 3,585 ft.; pay 3,603-06 ft.; T.D. 3,611 ft.; flowing by heads 120 bbls. in 12 hrs.

BUTLER COUNTY

Gaines et al's No. 1-A McKinley, NE NE SE Sec. 19-29-4.
Acidized K.C. lime 1,890-1,950 ft.; flowed 25 bbls. oil, 25 bbls. wtr.; reacidizing.

ELK COUNTY

Lassen's No. 1 Ferguson, SE SE SW Sec. 21-30-8.
1,760,000 ft. of gas 2,056-5 8ft.; 5-in. csg. 2,160 ft.; sand 2,169-76 ft.; T.D. 2,181 ft.; acidized; pumped 60 bbls. oil.

ELLSWORTH COUNTY

Carter Oil Co. et al's No. 1 Teuber, 440 ft. N and W of C Sec. 26-17-9w.
Set 12-in. pipe 101 ft.; drlg. 510 ft.

Pryor & Lockhart's No. 1 Gregory, SE SE SE Sec. 19-16-8w.
Building rig.

HARVEY COUNTY

O. J. Connell et al's No. 1 Roth, SW cor. Sec. 16-22-2w.
Spudded and S.D.

Imo O. & G. Co. et al's No. 1 Sperling, SE NE NE Sec. 23-22-2w.
Hunton lime 3,279-3,345 ft.; pumped 1,625 bbls. in 24 hrs.; 1% wtr.; completed.

Wenzel et al's No. 1 Schrag, NW SE Sec. 24-22-3w.
T.D. 587 ft.; S.D. for csg.

KINGMAN COUNTY

Magnolia Pet. Co.'s No. 1 Bartholomew, SE SE SW Sec. 30-27-4w.
Chat 3,694 ft.; gas 3,710-15 ft. and 3,725 ft.; drlg. 3,729 ft.

McPHERSON COUNTY

Lario O. & G. Co.'s No. 1 Base, SW cor. Sec. 22-20-2w.
Chat 2,931 ft.; standardizing at 2,982 ft.

L. W. Prunty et al's No. 1 Davis, NE cor. Sec. 6-23-1w.
Chat 2,922 ft.; drlg. 2,928 ft.

Stafford et al's No. 1 Krehbiel, NW NW SE Sec. 27-21-3w; (O.W.D.D.).
C.O. at 2,080 ft.

NESS COUNTY

Texas Co. and Gypsy Oil Co.'s No. 1 Goodman, C SW SW Sec. 21-19-23w.
Drlg. 4,542 ft.

PRATT COUNTY

Atlantic Oil Prod. Co.'s No. 1 Prentice, C SE NW Sec. 18-28-14w.
Drlg. 4,639 ft.

RENO COUNTY

Foraker et al's No. 1 Hiett, SE SW NE Sec. 34-24-4w.
T.D. 1,295 ft.; S.D.

Kessler, Their and Skelly's No. 1 Bigger, NE SE SW Sec. 29-23-6w.
Drlg. 3,370 ft.

Privett Drlg. Co.'s No. 1 Crotts, NE NW NE Sec. 27-26-10w.
8-in. 3,280 ft.; H.F.W. 3,390-3,400 ft.; drlg. 3,425 ft.

RICE COUNTY

Allison & Fitzwilliams et al's No. 1 Stumps, NW NW SW Sec. 4-18-10w.
15-in. 484 ft.

Day's No. 1 Mason, NW NE NE Sec. 28-21-7w.
Cellar.

Foraker, Nickerson et al's No. 1 Lyons, SE NW Sec. 27-20-8w.
H.F.W. 2,335-40 ft.; U.R. 10-in. csg.

(Continued on Page 81)

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2 *Controlled Quality*

3 *Complete Line*

4 *Consumer Demand*

5 *Contact Advertising*

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3 **COMPLETE LINE**—All petroleum needs can be bought from this same sure source, for Pure Oil refines and markets a complete line of automotive and industrial fuels and lubricants.

4 **CONSUMER DEMAND**—Known quality, wide distribution, and consistent advertising have created a ready-made demand for Pure Oil products, among home folks or tourists.

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Kanawha County Test Reaches Oriskany Sand; Making Million Feet of Gas and Some Oil

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Feb. 11.—Another test has reached the Oriskany sand in Kanawha County, West Virginia, but it is 8 miles south of the producer on the W. L. Burdette farm in Elk district. The test is on Little Spring Fork of Campbells Creek and is being drilled by Godfrey L. Cabot, Inc., on the Blue Flame farm of the Campbells Creek Coal Co. in Malden district. It reached the top of the Oriskany at 4,803 feet and at that depth gauged 750,000 feet of gas when drilled in. It later increased to 1,047,000 feet a day with a small amount of oil. It is shut in at that depth and repairs to the rig are being made before drilling it deeper.

The location is slightly west of the Chestnut Ridge anticline summit. The log of the test follows: Elevation derrick floor, 955.96 feet; clay, 0-12; gravel, 12-33; shale, 33-120; hard sand, 120-160; slate, 160-170; sand, 170-200; coal, 205-207; slate, 207-230; sand, 230-250; slate, 250-290; sand, 290-325; slate and shells, 325-480; hard sand, 480-540; slate and lime, 540-630; Salt sand, 630-1,048; slate and lime, 1,048-1,106; sand, 1,106-63; slate and shells, 1,163-95; red rock, 1,195-1,200; slate and shells, 1,200-25; Maxton sand, 1,225-82; Little Lime, 1,282-1,317; slate break, 1,317-25; sand and shells, 1,325-35; Pencil Cave, 1,335-43; Big Lime, 1,343-1,525; show of gas, 1,407 feet; Keener sand, 1,525-50, with about 37,000 feet of gas at 1,528-37 feet; Big Injun sand, 1,550-70; slate and shells, 1,570-1,947; brown shale, 1,947-1,954; Berea sand, 1,954-58; slate and shells, 1,958-2,400; soft slate, 2,400-3,100; brown shale, 3,100-50; lime shells, 3,150-57; brown shale, 3,157-3,235; hard sand, 3,235-40; brown shale, 3,240-3,440; brown shale, 3,440-3,825; gray slate, 3,825-4,300; brown slate, 4,300-4,616; white slate, 4,616-50; brown shale, 4,650-4,704; Corniferous lime, 4,704-4,803; hole reduced at 4,757 feet; Oriskany sand, 4,803; gas; shut down.

North of this test where other wells are drilling to the Oriskany sand, S. B. Avis, trustee for Grosscup and others, reached the top of the Oriskany sand on the Copen heirs farm and penetrated it 5 feet with a showing of only a small pocket of gas. This test is 2,500 feet north of the producer on the W. L. Burdette farm. Still farther north and west of this test, the Oriskany sand showed a thickness of about 17 feet in an unproductive earlier test on the S. N. Burdette farm. The Copen heirs test will be drilled deeper through the sand which is very hard.

Other wells drilling to the Oriskany sand in Elk district are at the following depths: V. C. Smith and others on the island at the mouth of Coopers Creek, the Matheney, Wertz and others lease, drilling at 4,148 feet; Clyde Oil & Gas Co. on the F. W. Shinn farm at 3,355 feet; Yoak Oil & Gas Co. on the W. T. and J. H. Goshorn farm at 1,250 feet, and Benedum & Trees, drilling at 1,100 feet on the Mary C. Wingfield farm.

Completions

There were 21 completions in the lower eastern fields during the past week. Ten were gas wells and 11 were producers with an initial production of 140 bbls. In addition there were five dry holes and additional reports of reconditioning wells. Southeast Ohio led in oil completions.

SOUTHEAST OHIO

In Guernsey County there were two completions. In Section 10, Millwood Township, Preston Oil Co. completed a test on the Arie E. Tittle farm in the Berea grit at a depth of 1,312 feet. It is showing for 8 bbls. a day. In the same section, C. C. Wharton and others completed No. 4 on the C. A. Frame and others lease at 1,326 feet in the Berea grit and it is making about 10 bbls. a day.

In Licking County, Blue Rock Oil & Gas Co. completed No. 5 on the J. N. Freese heirs farm in Section 14, Fallsbury Township. It was drilled in the Clinton sand to 3,020 feet and produced 68 bbls. the first day after shot.

In Medina County, Preston Oil Co. drilled a test on the B. V. Kelina farm, NW Lot 40, Hinckley Township. It proved dry in the Clinton sand, the total depth being 2,906 feet.

In Monroe County, SE Section 2, Franklin Township, John Lumbatis and others completed a test on the J. B. Hawkins farm in the Berea grit at 1,938 feet. It produced 2 bbls. the first day after shot. In Section 35, Bethel Township, Homer Newhart and others drilled No. 4 on the H. J. Burkhart farm about 800 south of No. 2 on this farm. At 1,642 feet it was dry in all sands and is being plugged.

In Washington County, H. B. Walker, trustee, completed No. 49 on the Robert Wymer farm, about 5 miles east of Chesterfield, Lot 1,144, Wesley Township. It was drilled to 486 feet, the First Cow Run sand, and is making about 2 bbls. a day. In Section 26 of this township, and about 2 miles south of Dale, F. M. Russell completed a second test on the John Zumbro farm in the First Cow Run sand and it will make a 1-bbl. pumper at a depth of 480 feet.

SOUTHWEST PENNSYLVANIA

There was only one well completed in Southwest Pennsylvania. In Morris Township, Washington County, James McCracken & Co. drilled deeper the test on the H. B. Saunders farm to a total depth of 2,850 feet, the Gantz sand. There is a volume of about 250,000 feet a day in this formation and the gas was turned in the lines. It may be drilled deeper later in the year.

In Amwell Township, Washington County, Carnegie Natural Gas Co. is drilling at 1,975 feet in the second test on the M. Manon farm. The top of the Big Injun sand was at 1,875 feet and there was a showing of 126,000 feet a day at 1,969 feet. On the R. M. Carrons farm, the same company has reached a depth of 2,050 feet. Union Gasoline & Oil Corp. has completed rig and is getting ready to drill on the L. Johns farm. About a half mile south of the test on the J. and Anne Phelan farm, F. K. Fawcett and others have made a location on the Minnie Tucker farm and are hauling in the rig. It is on the same line of production.

In East Findley Township, Washington County, the Natural Gas Co. of West Virginia is drilling at a depth of 2,450 feet on the T. F. Ealy farm. There was a small showing of gas in the Injun sand at 1,966 feet.

In Greene County Carnegie Natural Gas Co. started drilling deeper No. 2 on the George W. Gordon farm in Whiteley Township at 2,097 feet. The depth now is 2,150 feet. In Richhill Township Lewis & Co. have been delayed by a fishing job in starting to drill the test on the S. C. Chess farm. The hole reached only 200 feet.

In Allegheny County, Butler County National Bank & Trust Co. has started drilling No. 3 on the H. E. Clark farm. In McCandless Township, O. Miller is in the sand on the R. K. Hazlett farm. In Cecil Township, Washington County, Amon and Kaufman have reached 1,500 feet in a second test on the Thomas Weaver farm.

WEST VIRGINIA

There were several producers completed in West Virginia. The largest was a test in Center district, Calhoun County, and was drilled by Starcher & Richards on the J. P. Graybill farm. It is showing for 25 bbls. a day from the Injun sand.

In Doddridge County, on Arnolds Run in Central district, Fred Brown completed a test on the Ethel Bourne farm in the Injun sand at a depth of 2,208 feet. It tests 1 bbl. a day natural and will be shot.

In Ritchie County, W. A. Bickerstaff completed a test on the John Grogan farm in Clay district in the Injun sand at 2,254 feet. It is producing 5 bbls. a day along with about 23,600 feet of gas. In the same district, Lucky-Strike Oil Co. completed No. 2 on the J. L. and S. C. Robinson farm in the Injun sand and it is showing for 3 bbls. a day.

In Roane County, on Peniel Run of Curtis district, Reedy Oil & Gas Corp. completed a test on the Lizzie Moore heirs farm in the Salt sand good for 15 bbls. a day, natural. It will be shot.

Gas Wells

In Boone County, Owens Illinois Glass Co. completed No. 22 on the Peytonia Coal Land Co. lease in Sherman district in the Berea sand at a depth of 2,539 feet. It gauges about 189,000 feet a day.

In Calhoun County there was one small gas well and two dry holes. In Center district, South Eastern Gas Co. completed a test on the Rosa Daubins farm in the Injun sand at a depth of 1,982 feet. It has a volume of 68,000 feet a day, natural. In Washington district, Carroll and Hamilton drilled a test on the E. C. Knotts farm through the Injun sand to 2,270 feet. It was dry and is being abandoned. In Sheridan district T. W. Elliott and others drilled a test on the Guy Freed and others lease through the Injun sand to 1,797 feet. It also was dry.

In Kanawha County, Valley Gas Co. drilled deeper No. 2 on the G. W. Harless farm on the Indian Creek in Elk district from the Salt sand down to the Weir sand. It has a volume of 580,000 feet a day and is also producing about 5 bbls. of oil a day. In Louden district, Kanawha Coal Oil & Gas Co. completed No. 11 on the Kanawha Banking & Trust Co. lease in the Big Lime and it is a gas well gauging 200,000 feet a day.

In Ritchie County, A. R. Leatherman and others completed a test on the C. B. Markel farm in Clay district in the Big Injun sand at 1,937 feet. It will make a small gas well. In Grant district, New York Petroleum Co. drilled deeper No. 17 on the J. W. Marshall farm to 1,880

(Continued on Page 86)

May Drill 10 Wells for Gas in Van Wert; Twelve Completions in Central Ohio

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Feb. 11.—In the Lima Field plans are going forward for drilling in Van Wert County to produce natural gas for Van Wert and possibly Fort Wayne and along the Ohio-Indiana state line. Elmer Caudill of Van Wert, an oil operator, has been surveying the situation for more than a year. Mr. Caudill and Ralph A. Scott, of Indianapolis, recently secured a franchise from the city for retailing gas. Mr. Caudill said he based his enterprise on a survey in which L. S. Panyity, geologist, took part and stated that at least 10 wells will be drilled near Van Wert soon. The Van Wert Gas Light Co., which markets manufactured gas at Van Wert, is one of the mid-west properties of the Associated Gas & Electric Co.

At the present time there are four wells under way in Van Wert County. Elmer Caudill and others are drilling No. 4 Mary B. Sheets farm, Section 30, Jackson Township, and Hystanton Oil & Gas Co. is drilling on the J. A. Reed farm, same section. Mid-Continent Oil & Gas Co. is drilling No. 2 Frank Brenneman farm, Section 1, Sugar Creek Township, and in Jennings Township, H. C. Miller is drilling No. 4 James P. Davis farm, Section 5.

In the Tiffin Field, of Seneca County, Tiffin Independent Gas Co. is drilling No. 2 A. Shumaker farm, Secetion 5, Hopewell Township. In Liberty Township, R. C. Jones is drilling No. 1 Henry King, Section 31,

In Bath Township, Allen County, L. J. Pease & L. J. Pease, trustee, is drilling No. 5 Nancy E. Leedy farm, Section 14. In Auglaize County, Wayne Jones is drilling No. 2 A. & M. Rohrbach farm, Section 2, Salem Township.

In Wyandot County, G. H. Slack is drilling No. 2 Lawrence Swerline farm, Section 29, Tymochtee Township.

CENTRAL OHIO

Only 12 completions were reported from the Central Ohio Field for the week, of which two were oil producers with an initial of 125 bbls., one dry hole and nine gas wells. The largest producer of oil was Pure Oil Co.'s No. 4 Parker Mavis farm, Section 1, Jackson Township, Knox County, with an initial production of 100 bbls., at a total depth of 3,187 feet. Ohio Fuel Gas Co.'s No. 1 Perkins, H. H. Scott farm, Section 20, same township, is a gas well at 3,102 feet. Upham Gas Co. has a rig on the John W. McNabb farm, Lot 20, Butler Township. Same company is drilling No. 2 Edward H. Mickley farm, Lot 40, Union Township.

In Coshocton County, Preston Oil Co.'s No. 3 Carey Harris farm, Section 17, Perry Township, produced 20 bbls. initial.

In Medina County, East Ohio Gas Co. made a location for No. 1 on the E. S. Culp farm, Lot 11, Chatham Township. The Kemrow Co. made a location for No. 4 on the Brack & Hellman farm, Section 24, Brunswick Township. Ohio Fuel Gas Co. is drilling No. 1 Clyde L. Rose farm, Lot 25, Guilford Township.

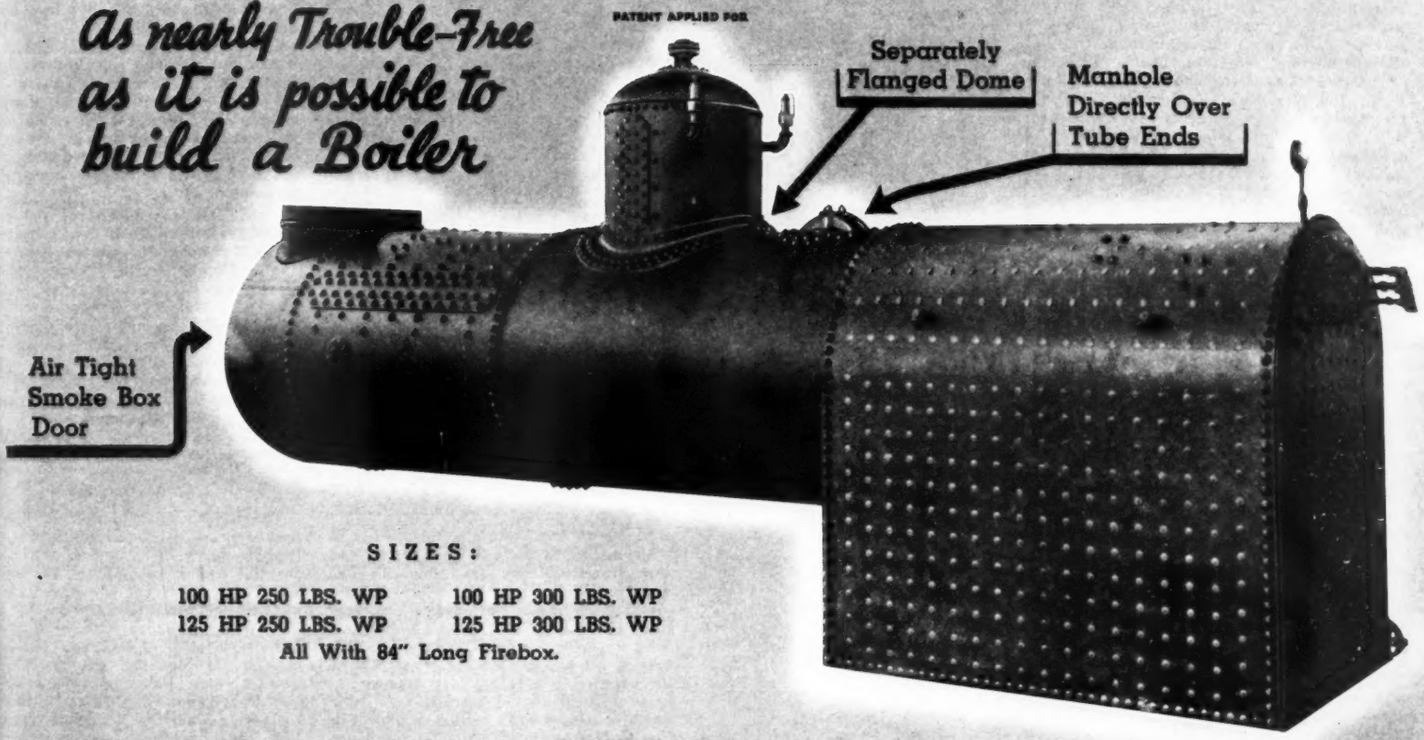
(Continued on Page 81)

Announcing

The New Lucey Oil Country Boiler *with* RIVETLESS FIREBOX!

As nearly Trouble-Free as it is possible to build a Boiler

PATENT APPLIED FOR



SIZES:

100 HP 250 LBS. WP — 100 HP 300 LBS. WP
125 HP 250 LBS. WP — 125 HP 300 LBS. WP
All With 84" Long Firebox.

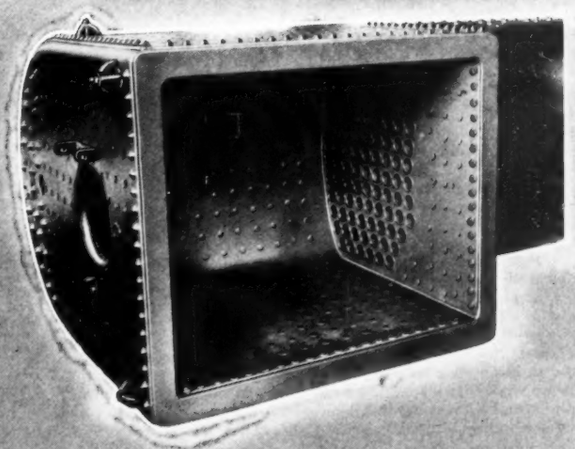
The accepted definition of boiler horse power (A.S.M.E. Test Code) is, "the evaporation of 34½ pounds of water from a temperature of 212° F. into dry saturated steam at the same temperature." Note that there *is no statement of time* in this definition: it may be slowly or quickly done. For this reason "boiler horse power" has little or no actual meaning until the *rate* of evaporation is known, and this varies to such a degree that it can be determined only by actual test. Even then such a test will indicate only what can be expected from the boiler tested.

A different make of boiler of the same rating might easily develop quite different results. However, purely for classification purposes, Lucey Boilers use the A.P.I. rating of "one boiler horse power to each ten square feet of heating surface." Through basic principles in our design, such as *thin heat-transfer sheets, short tubes,* (occupying just the effective heating length of the barrel—no more), *tube arrangement* and other features, we have secured much better development than is possible with boilers without these features, and comparative tests would readily enable us to claim eight square feet as a more equitable factor. It is an undeniable fact that a boiler with less, but more *effective* heating surface and *correct basic design* can be materially more efficient than larger boilers without these basic features.

Lucey has built such a boiler—write for descriptive bulletin No. 141.

1 Firebox Wrapper Uniform Thickness

2 Wrapper Welded Throughout No Rivets—No Thick Seams



3 Arched Crown Sheet

5 Firebox Tube Ends Welded

4 All Mud Ring Seams Tested. Caulked—Then Welded

6 Vertical Tube Arrangement

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TULSA, OKLAHOMA — HOUSTON, TEXAS

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NEW YORK CITY

Deep Drilling and Extensions Will Be Feature of Operations in California Fields This Year

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Feb. 11.—Although no new fields have been discovered in California so far this year, extension work and deep drilling in proved fields may prove to be an important factor in the production situation before 1935 draws to a close. Extension work in the Playa Del Rey Field has exceeded expectations and an outpost in the Montebello Field is showing every evidence of opening up either a new field or a substantial extension of the old pool. Deep tests are scheduled to be drilled in the Mountain View Field of Kern County and at Edison. A deep test is already under way in the Rosecrans Field and another in Shields Canyon with prospects fairly promising for the development of commercial production.

Unless something unforeseen develops, the potentiality of the new zone found by Universal Consolidated in the extreme eastern end of the Montebello Field of Los Angeles Basin should be determined within the next week or 10 days as the company is preparing to make a production test of No. 2 Nutt, an outpost which has shown promise.

Based on a drill stem test and judging by its structural location, No. 2 Nutt should be good for approximately 1,000 bbls. per day at its present depth. This outpost, according to careful correlation work, is about 265 feet higher structurally than the Texas Co.'s No. 4 Barry, finished in the Cruz zone pumping 80 bbls. per day from 7,025 feet, and approximately 500 feet higher than No. 1 Cruz, Universal Consolidated's deep zone discovery well in the field. Correlation work indicates a very decided thickening in the Pliocene in the area west of No. 2 Nutt. Extension work in this field has proven an exceedingly difficult problem due to unconformity in subsurface conditions with the result that the relationship of the new zone to other producing horizons in the old field is still more or less problematical.

February Allotment

California's producible crude oil allotment for the month of February has been fixed at 477,798 bbls. per day or 7,853 bbls. more than for January. The producible allotment is that amount of crude oil which can be produced by operators for the current month after allowance has been made by the umpire for any overproduction during the preceding period and the establishment of a reserve for anticipated completions. In other words it represents the net amount which operators may be permitted to produce without violating curtailment and which at the same time ties in with the established allowable set by the petroleum administrator.

Potential daily production of California was given a substantial boost on February 1 upon completion of data covering flow tests conducted during the month of January. On the date mentioned Umpire Pemberton fixed the state's potential as 1,498,895 bbls. per day which represents an increase of 17,295 bbls. daily, and 298,645 bbls. more than the potential in effect in February, 1934.

Edison

Drilling operations in the Edison Field of Kern County, as is the case at Mountain View, are getting less numerous although the intention of the A. T. Jergins Syndicate to start several new wells may tend to bolster up the declining rate of new work. There are a number of incompleted drilling projects under way at Edison and despite the decrease in drilling operations it is quite probable that completions during the next 15 days may be on a par with the number of new wells finished during the past two weeks. The Edison Field appears to comprise several scattered productive areas spread out over a relatively large expanse of territory.

The Mount Poso Field of Kern County yielded several good producers during the current week and several more potential producers are scheduled for completion within the next two or three weeks. The Shell finished the best well during the current week by completing No. 16 Vedder doing 1,266 bbls. of relatively clean 16.5 gravity oil per day from 1,770 feet and this new well will be followed into production by No. 7 Vedder-Rall, which is being rigged up for a pumping test from 1,968 feet. The Shell Oil Co. has staked locations for Nos. 18 and 19 on the Vedder property in Section 9-27-28 and has material on ground for No. 8 Vedder-Rall in Section 9-27-28.

The Union Oil Co. completed No. 21 S. & M. at 1,825 feet and this new well was brought in doing 999 bbls. of clean 16.7 gravity oil per day after the hole had been finished with a 6⅝-inch liner carrying 74 feet of perforated. The General Petroleum's No. 2 Glide, another new well, was good for 361 bbls. of clean 15.9 gravity oil per day on the beam following completion at 1,905 feet. Immediately subsequent to the completion of this well the General Petroleum spudded in No. 48 Heisen and this project should be tanking oil within the next fortnight. The Modoc Oil Co.'s No. 3 Johnson, in Section 28-26-28, was good for 202 bbls. of 15.7 gravity oil cutting 5 per cent following completion at 1,557 feet.

Mountain View

There were no wells finished in the Mountain View Field of Kern County this week but operators will probably make up for lost time within the next fortnight as there are a number of potential producers nearing the pay. The Barnsdall is reaming No. 1 Young preparatory to making an early production test and the Gilmore-Snyder Oil Co. has picked up the top of the Santa Margarita in No. 1 Mullaney at 5,481 feet. Drilling operations in this field have shown a perceptible decline during the past few weeks and although new projects are being started from time to time the rate at which new work is being started is considerably lower than heretofore. New wells started within the past 10 days include Shell's No. 1 Bahrenburg, Standard's No. 4 Wible and Mohawk's No. 4 McKeenan.

The Texas Co. picked up the top of the Santa Margarita in No. 1 Schamblin at 5,436 feet but these rocks were barren and drilling operations were suspended after carrying the hole down to 5,526 feet. The Mohawk Oil Co. is still the largest and most aggressive operator in the Mountain View Field as this company has finished 11 producing wells up to the present time and has three additional holes drilling ahead. The company's current production approximates 6,300 bbls. per day although its producible allotment is far below this figure.

Santa Barbara

The Rio Grande Oil Co. added a new well to its list of producers in the Santa Barbara Mesa Field this week by finishing No. 5 Perkins flowing 892 bbls. of clean 17.9 gravity oil per day. This new well was bottomed at 2,000 feet and finished with a 6⅝-inch water string landed and cemented at 1,966 feet. In accordance with prevailing practice no liner was set as the well was brought in barefoot. Rio Grande's No. 6 Perkins is scheduled for completion within the next 10 days and should, as has been the case with its predecessors, show commercial production. Drilling operations in the Santa Barbara Mesa Field has been slowing up during the past two weeks and consequently this field will begin to show a smaller number of completions from now on. Santa Barbara Mesa, Mountain View and Edison have all shown a declining tendency as far as new drilling is concerned but this may not have the effect on total state operations as might be expected due to increasing activity at Playa Del Rey and other fields undergoing exploration or exploitation.

In the Capitan Field of Santa Barbara County, the General Petroleum completed No. 12 Erburu but this new well, which was bottomed at 2,580 feet and finished with a 6⅝-inch oil string, proved somewhat of a disappointment as it was good for only 52 bbls. of oil and 20 bbls. of water per day. The Shell Oil Co. completed No. 2 Orella after redrilling and deepening the hole to 3,199 feet from which depth it was returned to production doing 60 bbls. of 42.5 gravity oil per day. This well was finished with a 4¾-inch liner carrying 172 feet of perforated and is flowing through a three-eighths-inch bean under a casing pressure of 470 pounds. Neither of these two wells came up to expectations, however, as the production of each was rather small. In the Goleta gas field of Santa Barbara County the Standard Oil Co. completed No. 2 Chase & Bryce and this new well was brought in flowing 8,700,000 feet of gas per day from 4,850 feet. This well was redrilled to 2,850 feet just before completion and the hole finished with a 6⅝-inch liner including 331 feet of perforated.

Long Beach

There was really only one good well finished in the Long Beach Field of Los

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Jan. 27		Jan. 20			
Intercoastal-domestic:	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	.....	.....	.....	.....	.....	1,310,698
Diesel and gas oil	76,620	10,946	158,924	22,703	235,544	152,052
Gasoline	191,200	27,314	.....	.....	459,149	403,194
Kerosene	.....	.....	78,460	11,209	78,460	79,870
Foreign exports:						
Crude oil	143,671	20,524	143,018	20,431	628,263	658,677
Fuel oil	300,187	42,884	210,494	30,071	887,132	596,136
Diesel and gas oil	42,006	6,001	2,590	370	135,562	187,417
Gasoline	47,135	6,732	2,461	352	114,476	466,868
Kerosene	65,009	9,287	2,475	354	98,330	65,188
Coastwise-domestic:						
Crude oil	.....	.....	78,542	11,220	520,512	87,478
Fuel oil	109,043	15,578	385,063	55,143	1,077,849	594,269
Diesel and gas oil	4,416	631	13,101	1,872	21,048	61,444
Gasoline	4,534	646	178,555	25,508	625,514	963,571
Kerosene	10,407	1,487	.....	.....	23,714	7,392

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic:						
Diesel and gas oil	.....	.....	.....	.....	78,075	97,993
Gasoline	.....	.....	.....	.....	.....	72,625
Kerosene	.....	.....	.....	.....	.....	80,925
Lubricants	4,005	572	.....	.....	4,005	8,310
Foreign exports:						
Crude oil	92,650	13,236	76,974	10,996	169,624	183,202
Fuel oil	18,513	2,645	20,132	2,876	92,537	110,102
Diesel and gas oil	70,699	10,100	.....	.....	74,557	144,274
Gasoline	121,396	18,771	.....	.....	293,495	264,994
Kerosene	38,756	5,537	.....	.....	42,139	77,912
Lubricants	19,413	2,773	.....	.....	19,413	19,955
Coastwise-domestic—						
Fuel oil	117,824	16,832	19,708	1,530	168,708	266,146
Diesel and gas oil	.....	.....	.....	.....	10,490	25,599
Gasoline	137,484	19,636	53,071	7,582	232,921	293,539
Kerosene	.....	.....	.....	.....	.....	7,317

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Speik, F. A., No. 1 Athens, Los Angeles Co.	2- 2-14	4,402	sd. sh. drlg.
Lennox Oil Fields Co., No. 1 Hawthorne, Los Angeles Co.	4- 2-14	....	material
Macrate, A. N., No. 1 Athens, Los Angeles Co.	18- 2-14	6,244	cleaning out
Hillside Oil Co., No. 1 Hermosa, Los Angeles Co.	31- 2-14	....	grade
Wilshire Oil Co., No. 2 Potrero Deep, Los Angeles Co.	27- 2-14	3,297	sd. sh. drlg.
Ohio Oil Co., No. 16 Del Rey, Los Angeles Co.	28- 2-15	....	bldg. rig
Trinity Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	4,280	sd. sh. drlg.
Pacific Drlg. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	1,781	sd. sh. drlg.
Madison Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	....	rig litigation
Mammoth Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	4,791	sd. sh. drlg.
Fouri, C. W., No. 2 Del Rey, Los Angeles Co.	27- 2-15	5,560	sd. sh. drlg.
Dunlap, D. D., No. 1 Del Rey, Los Angeles Co.	27- 2-15	5,992	sd. sh. drlg.
Royalty Service Corp., No. 1 Del Rey, Los Angeles Co.	27- 2-15	....	rigging up
Schirm & Thayer, No. 1 Del Rey, Los Angeles Co.	27- 2-15	....	bldg. rig
Union Oil Co., No. 7 Del Rey, Los Angeles Co.	27- 2-15	5,400	sd. sh. drlg.
Union Oil Co., No. 8 Del Rey, Los Angeles Co.	27- 2-15	....	bldg. rig
Big Ben Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,042	cmtd. 6,042
Bethlehem Expl. Co., No. 1 Manhattan, Los Angeles Co.	30- 2-14	5,304	cleaning out
Vance Dev. Co., No. 1 Artesia, Los Angeles Co.	25- 2-12	....	rigged up
Universal Consd., No. 4 Montebello Deep, Los Angeles Co.	6- 2-11	5,122	cm.d. 5,025
Shively, N. O., No. 1 Puente Hills, Los Angeles Co.	23- 2-10	3,053	sd. sh. drlg.
Pressel & Tull, No. 1 Puente Hills, Los Angeles Co.	30- 2-9	4,200	hd. sd. drlg.
International Dev. Co., No. 1 Baugus, Los Angeles Co.	34- 5-16	4,325	recmtd.
Barstow Oil Co., No. 1 Castaic, Los Angeles Co.	35- 5-16	3,265	suspended
Republic Pet. Co., No. 1 Newhall, Los Angeles Co.	6- 3-15	1,861	sd. sh. drlg.
Black Eagle Oil Co., No. 1 Huntington, Orange Co.	tideland	4,702	cmtd. 4,243
Explorers Drilling Co., No. 1 Fairview, Orange Co.	9- 6-10	945	cleaning out
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	6,485	suspended
B. & B. Oil Co., No. 1 Newport, Orange Co.	19- 6-10	4,397	sd. sh. drlg.
C. G. Shannon, No. 1 Yorba, Orange Co.	21- 3-9	5,777	rigged up
Great American Pet. Co., No. 2 East Coyote, Orange Co.	19- 3-9	3,272	sd. sh. drlg.
Tehama Pet., No. 1 Santa Ana Canyon, S. Bernardino Co.	33- 2-8	2,698	P.B. 2,381
San Diego Pet. Co., No. 1 Chula Vista, San Diego Co.	32-18-2	6,332	cleaning out
Stenhens, J. T., No. 1 Chula Vista, San Diego Co.	27-18-2	209	hd. sd. drlg.
Edmonds, E. A., No. 1 Trustee, San Diego Co.	29-15-3	2,431	hd. sd. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36- 5-5	902	hd. sd. drlg.
Corona Oil Co., No. 1 Corona, Riverside Co.	27- 3-7	....	rigging up

Angeles Basin this week although several others were listed as having been completed. The most satisfactory completion was the Sentinel Oil Co.'s No. 1 Signal, which was brought in pumping 431 bbls. of relatively clean 27.8 gravity oil per day following completion at 4,156 feet. Henri Domengeaux finished his first new well in the Long Beach Field and this project was brought in pumping 240 bbls. of 26.8 gravity oil per day from 4,110 feet after the hole had been finished with a 4½-inch liner carrying 320 feet of shop perforated. The output of this new well is still cutting about 18 per cent and may require further work although it seems to be cleaning up in good shape.

The Deco Oil Co.'s No. 2 Long Beach, another new well, was completed this week but it was good for only 68 bbls. of relatively clean 27.1 gravity oil per day from 4,715 feet. This hole was redrilled to 4,670 feet and finished with a 4¾-inch liner including 355 feet of perforated. The Long Beach Field which holds some kind of a record for longevity is still maintaining its record as far as new drilling is concerned and will probably continue to be active for some time to come. This old field is still very active and new wells are being spudded in rather frequently. Recent spuds at Long Beach include Bolsa Chica Oil Co.'s No. 3 Combs, R. R. Bush Oil Co.'s No. 2-A Hillseth, Caro-Lyne Oil Co.'s No. 1 Signal, Consolidated Empire Oil Co.'s No. 4 Signal, Shell Oil Co.'s No. 10 Cherry Hill and No. 7 Marcellus and the Williams Oil Co.'s No. 1 Long Beach.

Wells previously spudded in but still incompleted include R. R. Bush's No. 4 fee, drilling ahead at 3,912 feet; Southern California Drilling Co.'s No. 3 Miller, at 4,450 feet; Tom Aitken's No. 1 Signal, at 4,449 feet; Allen Petroleum's No. 6 Signal, at 4,371 feet; Bernal Oil Co.'s No. 3, at 4,580 feet; Boswell Petroleum Co.'s No. 1 Crest, at 4,320 feet; J. H. Cochran's No. 10 Signal at 4,164 feet; Commercial Oil Co.'s No. 2 Signal at 4,100 feet; Goodrich's No. 1 Long Beach at 3,940 feet; Huntington Investment's No. 1-A, at 3,405 feet; Kiowa Oil Co.'s No. 1, at 3,471 feet; Milpit Oil Co.'s No. 8 Signal at 999; Morton & Elder's No. 3 Pauley, at 3,416 feet; Prosperity Oil Co.'s No. 1 Signal, at 4,153 feet; San Andreas Oil Co.'s No. 1 Long Beach, at 3,492 feet; Twentieth Century Oil Co.'s No. 1, at 2,897 feet; Willow Oil Co.'s No. 1, at 3,574 feet, and Yunker and Cromwell's No. 1 Signal, at 3,587 feet. Most of these drilling wells should be ready for production tests within the next 30 to 60 days at the most. In addition to new wells recently spudded in, R. R. Bush, D. W. M. Corp., and the Pencole Petroleum Co. are building new rigs for early work.

Santa Fe Springs

The Union Oil Co. added another new well to its list of producers in the Santa Fe Springs Field of Los Angeles Basin this week by completing No. 72 Bell pumping 306 bbls. of clean 33.2 gravity oil per day from 4,455 feet. The Union is rigging up three additional new wells and grading four other locations in this field for work to be undertaken in the near future. In the Playa Del Rey Field the Union is making splendid time with No. 7 Vidor, a recent spud, and unless something unforeseen develops this new well should be tanking oil within the next 10 or 15 days. No. 6 Vidor, the last well finished by the Union in this field, has built up to 1,470 bbls. per day

(Continued on Page 81)

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
General Pet. Co., No. 12 Capitan, Santa Barbara Co.	32- 5-30	2,580	pump 50 b.d.
General Pet. Co., No. 13 Capitan, Santa Barbara Co.	32- 5-30	....	bldg. rig
Shell Oil Co., No. 2 Capitan, Santa Barbara Co.	32- 5-30	3,199	flow 60 b.d.
Shell Oil Co., No. 4 Capitan, Santa Barbara Co.	5- 4-30	....	rigging up
Royalty Serv. Corp., No. 1 Los Alamos, Santa Barbara Co.	35- 9-32	4,500	suspended
York-Smullin, No. 2 Lompoc, Santa Barbara Co.	33- 8-34	2,453	cleaning out
Advance Pet. Co., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,631	temblor
Barnsdall-Rio Grande, No. 10-88 Elwood, S. Barbara Co.	tideland	....	rigged up
East Elwood Pet. Co., No. 1 Elwood, Santa Barbara Co.	14- 4-29	3,732	looks wet
Shell Oil Co., No. 1 Goleta, Santa Barbara Co.	20- 4-28	6,375	rd. sd. drlg.
Standard Oil Co., No. 2 Goleta, Santa Barbara Co.	17- 4-28	4,850	gas well
Ortega Oil Co., No. 1 Summerland, Santa Barbara Co.	16- 4-26	4,583	suspended
General Pet. Co., No. 4 Rincon, Ventura Co.	tideland	....	bldg. found.
Las Posas Pet., No. 1 Las Posas, Ventura Co.	23- 3-30	7,398	cm.d. 7,000
El Rancho Oil Co., No. 1 South Mountain, Ventura Co.	9- 3-19	....	rigging up
Texas Co., No. 128 South Mountain, Ventura Co.	4- 3-19	5,430	cleaning out
Bolsa Chica Oil Co., No. 2 Piru, Ventura Co.	4- 4-18	671	cleaning out
Dawson Oil Co., No. 1 Simi, Ventura Co.	5- 2-17	1,876	suspended
Continental Oil Co., No. 1 Ojai, Ventura Co.	12- 4-33	1,543	pump 160 b.d.
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24- 3-33	7,110	cleaning out
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22- 4-21	2,300	suspended
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	1,720	sd. sh. drlg.
General Pet., No. 1 South Belridge, Kern Co.	30-28-21	11,377	milling
Union Oil Co., No. 18 North Belridge, Kern Co.	36-27-20	8,523	redrlg. 8,132
Standard Oil Co., No. 1-A North Belridge, Kern Co.	36-27-20	7,300	sd. sh. drlg.
Standard Oil Co., No. 2 North Belridge, Kern Co.	36-27-20	5,671	suspended
Belridge Oil Co., No. 32-35 North Belridge, Kern Co.	35-27-20	....	bldg. rig.
Amerada Pet., No. 2 Blackwells Corner, Kern Co.	17-26-19	....	bldg. rig
Standard Oil Co., No. 1 Delano, Kern Co.	1-25-23	2,570	sd. sh. drlg.
Trico Oil & Gas Co., No. 1 Alpaugh, Kern Co.	3-25-23	2,525	gas—shut in
Trico Oil & Gas Co., No. 3 Alpaugh, Kern Co.	34-24-22	2,170	sd. sh. drlg.
Buckeye Union Oil Co., No. 2 McVan, Kern Co.	10-27-27	1,351	P.B. 1,295
Golden Bear Oil Co., No. 1 Kern Front, Kern Co.	32-27-27	....	bldg. rig.
Surety Oil Co., No. 1 Edison, Kern Co.	32-29-29	....	rig suspended
Petroleum Drilling Co., No. 1 Edison, Kern Co.	32-29-29	550	suspended
Signal Oil & Gas Co., No. 1 Edison, Kern Co.	31-29-29	2,200	gr. sd. drlg.
Signal Oil & Gas Co., No. 2 Edison, Kern Co.	5-30-30	....	bldg. rig
Caravel Pet., No. 1 Sivert, Kern Co.	19-30-30	1,590	cleaning out
Sea Cliff Oil Co., No. 1 Greenfield, Kern Co.	7-31-28	615	cleaning out
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-32-29	1,582	reaming
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-27-23	3,200	sd. sh. drlg.
Seeple, J. O., No. 1 Elk Hills, Kern Co.	5-30-24	3,393	sd. sh. drlg.
Richfield Oil Co., No. 2 Devil's Den, Kern Co.	14-25-18	1,453	sd. sh. drlg.
Texas Co., No. 1 Temblor, Kern Co.	29-29-21	3,571	br. sh. drlg.
Shell Oil Co., No. 1 Buena Vista, Kern Co.	9-32-25	4,193	sd. sh. drlg.
Reserve Oil & Gas Co., No. 1 Tejon, Kern Co.	2-10-19	3,374	sd. sh. drlg.
Badger Oil Co., No. 1 Tejon, Kern Co.	31-11-19	6,248	redrlg. 4,400
Russ Oil Synd., No. 1 Dos Palos, Fresno Co.	28-12-11	5,110	hd. sd. drlg.
Bergman, Harry, No. 1 Dos Palos, Fresno Co.	12-12-11	6,138	suspended
Union Oil Co., No. 1 Lillis-Kettleman, Fresno Co.	24-21-16	10,944	suspended
K.N.D.A., No. 56 Kettleman, Kings Co.	8-22-18	10,154	redrlg. 9,449
Continental Oil Co., No. 1 Kettleman-South, Kern Co.	7-25-20	1,370	sd. sh. drlg.
Texas Co., No. 1 Coalinga, Fresno Co.	36-20-14	1,870	br. sh. drlg.
Farrel Pet., Well No. 1, San Luis Obispo Co.	18-31-12	1,432	hd. sh. drlg.
Willett Oil Co., No. 1 Cholame, San Luis Obispo Co.	10-25-15	3,603	wet
Commonwealth Consd. Gas, No. 1 Tulare Lake, Kings Co.	21-22-20	2,490	gas—shut in
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings Co.	21-22-20	....	rig suspended
Kettleman Pac. Oil Co., No. 1 Tulare Lake, Kings Co.	11-23-16	812	suspended
General Pet., No. 1 Devil's Den, Kings Co.	20-24-18	....	rig suspended
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	35-16-1	6,774	hd. sh. drlg.
Amerada Pet., No. 1 F.L.D., San Joaquin Co.	15- 2-5	....	material
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,360	hd. sd. drlg.
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24-3	2,466	hd. sh. drlg.
Texas Co., No. 1 Petrolia, Humboldt Co.	1- 3-2	2,296	sd. sh. drlg.
Hancock Oil Co., No. 4 Mountain View, Kern Co.	14-30-28	2,190	sd. sh. drlg.
Associated Oil Co., No. 1 Mountain View, Kern Co.	3-31-29	5,501	granite
Star Pet. Corp., No. 1 Mountain View, Kern Co.	10-30-28	4,751	sd. sh. drlg.
Shell Oil Co., No. 1 Mountain View, Kern Co.	32-30-29	....	rigging up
Union Oil Co., No. 4 Mountain View, Kern Co.	15-30-28	5,525	redrlg. 4,230
Union Oil Co., No. 5 Mountain View, Kern Co.	15-30-28	5,474	suspended
Union Oil Co., No. 6 Mountain View, Kern Co.	9-30-28	5,065	hd. sd. drlg.
Union Oil Co., No. 7 Mountain View, Kern Co.	23-30-28	4,990	sd. sh. drlg.
General Petroleum, No. 3 Mountain View, Kern Co.	14-30-28	....	rigging up
Texas Co., No. 4 Mountain View, Kern Co.	14-30-28	5,526	suspended
Barnsdall, No. 3 Mountain View, Kern Co.	21-30-28	4,950	reaming
Hogan Pet., No. 6 Mountain View, Kern Co.	4-31-29	4,760	fish D.P.
Hogan Pet., No. 7 Mountain View, Kern Co.	29-30-29	....	rigging up
Jergins Trust, No. 5 Mountain View, Kern Co.	24-30-28	....	rigging up
Standard Oil Co., No. 5 Mountain View, Kern Co.	24-30-28	....	rigging up
Standard Oil Co., No. 6 Mountain View, Kern Co.	23-30-28	....	rigging up
Hoyt, Otis, No. 2 Mountain View, Kern Co.	24-30-28	5,755	redrlg. 1,280
Ohio Oil Co., No. 1 Mountain View, Kern Co.	32-30-29	5,280	sd. sh. drlg.
Mountain View Oil Co., No. 1 Mountain View, Kern Co.	25-30-28	4,975	fish D.P.
Gilmore-Snyder Oil Co., No. 2 Mountain View, Kern Co.	24-30-28	5,529	cmtd. 5,395
Jergins Trust, No. 4 Edison, Kern Co.	23-30-29	2,488	P.B. 2,115
Jergins Trust, No. 5 Edison, Kern Co.	23-30-29	....	bldg. rig
Consd. Crude Oil Co., No. 1 Edison, Kern Co.	17-30-29	5,000	sd. sh. drlg.
Ohio Oil Co., No. 1 Edison, Kern Co.	36-30-29	1,080	suspended
Shell Oil Co., No. 4 Edison, Kern Co.	15-30-29	3,339	cmtd. 3,320
Shell Oil Co., No. 5 Edison, Kern Co.	21-30-29	2,394	sd. sh. drlg.
Monterey Expl. Co., No. 6 Edison, Kern Co.	15-30-29	1,870	sd. sh. drlg.
Monterey Expl. Co., No. 7 Edison, Kern Co.	15-30-29	3,268	P.B. 3,170
Chaulk Oil Co., No. 1 Edison, Kern Co.	5-30-29	....	rig suspended
Texas Co., No. 1 Edison, Kern Co.	4-30-29	3,518	recmtd.
Foster, Inc., No. 1 Edison, Kern Co.	8-30-29	3,250	sd. sh. drlg.
General Pet., No. 3 Edison, Kern Co.	24-30-29	....	rigging up
General Pet., No. 4 Edison, Kern Co.	14-30-29	....	rigging up

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Seven New Locations in Southeast New Mexico; Systematic Development for Iles Pool, Colo.

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Feb. 11.—Seven new locations in southeastern New Mexico made the past week mark the beginning of the 1935 drilling campaign which is expected to result in expenditures of at least $5,000,000 for wells in proven territory and for the drilling of wildcats. Stanolind Oil & Gas Co.'s No. 5-A Meyers, in the Cooper Pool, was completed for 118 bbls. an hour. Two other wells in this pool are near completions. The Amerada wildcat, 7 miles north of the Eunice Pool, continues to show up favorably. Shell Petroleum Corp.'s No. 1-A State, west side of the Eunice Pool, picked up saturation below horizon showing water. Skelly's No. 1-C State is a near completion and made 32 bbls. of fluid, 80 per cent oil, in 1½ hours. The Amerada-Skelly's No. 1-E State, which extends the Hobbs Pool slightly to the west, gauged 7,841 bbls. after acidizing. Another test will be drilled on the northwest flank. J. P. Cusack's No. 1 Moon, also is coming in as a producer on the east side. The Southern Petroleum Exploration Co.'s No. 2 Ascarate, in the Jal Pool, made 500 bbls. initial through the tubing, and Continental Oil Co. made three locations. Maljamar Oil & Gas Co.'s No. 4 Baish, in the Maljamar Pool, was completed for 210 bbls. after acidizing and the company made a location for another test a mile to the southeast. The Repollo Oil Co. spotted a wildcat in the Nadine area. The Neil Wills wildcat and the A. & M. Petroleum Co.'s No. 1 State, in Eddy County, were abandoned. The Grayburg Oil Co. made a new location in the Maljamar Pool. Two deep tests are spudding in San Miguel and Guadalupe Counties.

In Colorado the Stanolind Oil & Gas Co. has under way a systematic development of the Iles Pool, the state's largest field. There were no completions.

In Wyoming, the California Exploration Co. will test the Madison on the Spence structure in Big Horn County, and one new operation is starting in Niobrara County.

One completion and one new location were reported in the Cut Bank Field in Montana. Purchasers are limiting amount of crude they will take in both Kevin-Sunburst and Cut Bank.

NEW MEXICO

Allocation of production for the state of New Mexico for the first half of February is 50,400 bbls. daily, of which 49,400 bbls. represents the federal allocation and 1,000 bbls. allowed by the state committee to absorb shortage caused by marginal wells. This allowable is distributed among the various pools by the state committee on the basis of 3,350 bbls. daily outside of Lea County and 47,050 bbls. daily for Lea County pools. The allowable outside of Lea County is as follows:

Pool—	Bbls.
Artesia	2,350
Hogback	225
Rattlesnake	700
Table Mesa	60
Aztec-Bloomfield	15
Total	3,350

The Lea County allocation permits 28 marginal wells to produce at capacity, or 1,658 bbls. daily. After deducting the marginal units, the pools are allocated 45,050 bbls., or a top allowable of 152 bbls. per well per day for nonmarginal units. Allocations by pools for Lea County, including marginal and nonmarginal units, are as follows:

Pool—	Bbls.
Cooper	4,202
Eunice	5,834
Jal	4,306
Lea	1,426
Lea extension	19
Hobbs	31,263
Total	47,050

Cooper Area

Stanolind Oil & Gas Co.'s No. 5-A Meyers, C NW NE Section 22-24-36, which extends the proven area of the Cooper Pool one location to the north and west, was completed for 118 bbls. an hour initial production through the 3-inch tubing, with 1,386,000 feet of gas. It was drilled to 3,575 feet and the pay was at 3,570-75 feet. The 7-inch was cemented at 3,527 feet and the tubing was run to 3,561 feet. The elevation is 3,346 feet.

The Stanolind's No. 4-A Meyers, C NE SW Section 22-24-36, is a near completion at 3,608 feet, total depth. At 3,275-3,608 feet, a drill stem test showed 3,250 feet of sulphur water and 360 feet of oil in 12 hours. Tubing with packer was then run to 3,583 feet and the well tested 80 bbls. in one hour, of which 50 per cent was water. It is preparing to plug back.

Another near completion is the Texas Co.'s No. 2 Ogg, C NW NE Section 35-24-36, which made 1,173 bbls. in 24 hours through the 3-inch tubing with 27,000,000 feet of gas, after treating with 2,000 gallons of acid. It will make further tests before completing.

The Empire Gas & Fuel Co.'s No. 2 Everett, C SE SW Section 35-24-36, is digging cellar and pits. The Texas Co.'s No. 3 Ogg, C SW NW Section 35-24-36, in a drill stem test at 3,439 feet, total depth, showed 270 feet of oil in 30 minutes. The 7-inch was then cemented at 3,422 feet with 200 sacks. Same company's No. 3 Ogg, C NW NW Section 35-24-36, is drilling at 1,816 feet in salt, and its No. 5 Ogg, C NW SE Section 35-24-36, cemented the 9⅝-inch at 1,700 feet with 1,000 sacks, and is drilling ahead at 1,710 feet. Phillips Petroleum Co.'s No. 11 Woolworth, C SE NW Section 26-24-36, is drilling at 2,785 feet in anhydrite, and its No. 12 Woolworth, C NE SW Section 26-24-36, is drilling at 735 feet in new hole in red beds.

The Continenal Oil Co.'s No. 15-A Vaughn-2, C SW SE Section 15-24-36, is drilling at 1,087 feet in anhydrite, and its No. 15-A Vaughn-1, C SE SE Section 15-24-36, is drilling at 1,695 feet in anhydrite. Same company's No. 14-A Vaughn-1, C SW SW Section 14-24-36, is drilling at 3,028 feet in lime, and its No. 14-A Vaughn-2, C SE SW Section 14-24-36, is fishing for drill pipe at 2,771 feet, in anhydrite. The Amerada Petroleum Corp.'s No. 2 Everett, C SE SW Section 26-24-36, began spudding January 22, set the 12½-inch at 150 feet with 150 sacks, and is drilling at 1,060 feet in the red beds. The Simms Oil Co.'s No. 1 Woolworth, C SE NE Section 35-24-36, is fishing for drill pipe at 3,406 feet.

Eunice Area

Amerada Petroleum Corp.'s No. 1-D State, C NW NW Section 1-20-36, a wildcat 7 miles north of the Eunice Pool, had more shows of oil and gas the past week. It had a show of oil at 3,725-35 feet and a drill stem test at 3,685-3,712 feet showed 1,000,000 feet of gas in 15 minutes. Another test at 3,725-50 feet failed to yield any results and hole will be drilled deeper.

Shell Petroleum Corp.'s No. 1-A State (State-Endura), C SE NE Section 12-21-36, more than a mile west of production, which swabbed 7½ bbls. of fluid an hour, of which 20 per cent was water, at 3,979 feet, followed by 2,800 feet of sulphur water in two hours at 4,054-95½ feet, is showing up better upon drilling deeper. At last reports it was coring at 4,190 feet in lime and core at 4,180-90 feet was showing saturation. The hole is bottomed at 602 feet below sea level as against 282 feet below sea level for the nearest producer to the east.

The Skelly Oil Co.'s No. 1-C State, C NE NW Section 29-21-36, is a near completion at 3,925 feet, total depth. It topped the pay at 3,830 feet and is testing. It showed for 32 bbls. of fluid in one and one-half hours, of which 80 per cent was oil. There was no gas. The location is near the south edge. Two locations to the south of this well, Atlantic Oil Co.'s No. 1-F State, C SW SW Section 29-211-36, which swabbed approximately 25 bbls. of oil and 75 bbls. of water after plugging back from 3,977 to 3,968 feet and after treating with 5,000 gallons of acid, has plugged hole with cement back to the 7-inch and shut down indefinitely. Peerless Oil & Gas Co.'s No. 1 State, C NW SW Section 19, between the two wells mentioned above, is still shut down for orders at 3,974 feet, where it also showed water.

The Shell Petroleum Corp.'s No. 1-B State, C NW NW Section 29-21-36, is drilling at 3,562 feet in lime. Gypsy Oil Co.'s No. 3 Bell-Ramsey, C SW SW Section 9-21-36, is running the 7-inch at 2,818 feet, total depth, and its No. 1 Houston, C SE SE Section 7-21-36, cemented the 9⅝-inch at 2,820 feet with 950 sacks, and is drilling ahead at 2,862 feet. The Tide Water Oil Co.'s No. 3 State-Foster, C NW NE Section 8-21-36, cemented the 7-inch at 3,780 feet with 560 sacks and is drilling at 3,788 feet in lime. Continental Oil Co.'s No. 30-A Lockhart-1, C SE NE Section 30-21-36, is still testing at 3,940 feet, and its No. 9-B Meyers-2, C SE NW Section 9-21-36, has rig up. Same company's No. 18-A Meyers-1, C NE NE Section 18-21-36, had gas at 2,945-51 feet and is drilling at 3,145 feet in lime, and its No. 8-A Meyers-3, C SW SW Section 8-21-36, is shut down for repairs at 3,207 feet, in lime. Repollo Oil Co.'s No. 1 Adkins, NW cor. SE Section 9-21-36, set the 15½-inch at 97 feet with 250 sacks, and is drilling at 1,150 feet in red beds.

Hobbs Area

Amerada Petroleum Corp. and Skelly Oil Co.'s No. 1-E State, NE SW NW Section 24-18-37, which extended the Hobbs Pool one-fourth of a mile to the west at the northwest end of the development, proved to be a much bigger well than last week's estimate of 2,000 bbls. a day. After treating with 2,000 gallons

Completion in South Turner Valley Field Shows Recovery of 35 Barrels Daily

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Feb. 9.—In Section 28-18-2w5, South Turner Valley, Spooner Oils' No. 5 Anaconda, LSD 1, bottoming at 6,305 feet, finished a production test showing 30 to 35 bbls. a day naphtha recovery against 500 pounds pressure. It is being given a shot. Spooner's No. 5, which got the limestone at 5,510 feet, is in the subdivision immediately north of Highwood-Sarcee Oils' No. 1, which got the lime at 5,352 feet and is the largest producer in the field. Immediately north of the Spooner well Publix Oil & Gas Co.'s No. 1, LSD 8, same section, got the lime at 4,898 feet and cemented 8⅝-inch casing at 4,908 feet. This is the highest point at which the lime has been encountered in Section 28. At the lime contact a gas flow was struck, and control equipment is being installed before drilling into production.

Renfrew Royalties' No. 1, LSD 3, same section, is at 4,410 feet and preparing to run casing. Several small gas and oil shows were met in the upper horizons. British Dominion Oil & Development Corp.'s No. 4, LSD 6, is in the lower Blairmore formation below 4,850 feet.

On the east side, Merland Oil Co.'s No. 2, LSD 13, Section 27-18-2w5, is running 13⅜-inch casing to 2,875 feet. It has logged closely with No. 1 producer in the same LSD. In the far south, Union-Freehold Oil Corp.'s No. 1, LSD 8, Section 21-18-2w5, is below 5,085 feet.

In the Central Turner Valley, McLeod Oil Co.'s No. 3, LSD 16, Section 1-20-3w5, is pulling casing and plugging the hole in the lime. Bow Oils' No. 1 (formerly Illinois-Alberta's No. 1), LSD 13, Section 12-20-3w5, has been cleaning out, and some gas is coming up around the old diamond drill pipe.

In North Turner Valley, Royalite Oil Co.'s No. 26, LSD 5, Section 23-20-3w5, is below 2,115 feet. This is the only test drilling in the north end, offsetting Model Oils' No. 1 producer 800 feet to the southeast. Model's No. 1 is reported making 140 bbls. a day from the lime, the production, unlike other Turner Valley deep wells, being light crude instead of naphtha.

Tests in the Foothills

On the Watson structure, in the southern Alberta foothills, Raven Oils' No. 1, LSD 1, Section 20-9-2w5, is at 1,225 feet and cementing to shut off water. Mar Jon Oil Co.'s No. 3, LSD 3, Section 4-10-2w5, is standing cemented at 740 feet. Mar Jon-Maxmont's No. 4, LSD 10, Section 20-9-2w5, is shut down at 1,295 feet.

On the Highwood-Sinclair structure, south of Turner Valley, Canadian Royalties' No. 1 Banner, LSD 5, Section 34-17-3w5, has resumed from 718 feet and is running three tours. Samples indicate it is just above the McDougall-Segur light crude horizon, between 1,000 and 1,500 feet shallower than in the Turner Valley.

North of Calgary, the unfinished Cartier-Majestic's No. 1, LSD 3, Section 36-31-7w5, will likely be finished by Eastern Canada interests. It is standing at 1,460

(Continued on Page 86)

of acid it gauged 7,841 bbls. open flow in 24 hours with 4,261,000 feet of gas. Through the 3-inch at 4,235 feet it flowed at the rate of 4,131 bbls. and 2,475,000 feet of gas. The total depth is 4,240 feet. The pay was at 4,162-4,240 feet and the elevation is 3,680 feet. It is listed as a completion.

The testing out of the area on the northwest, the only part of the field in which the edge has not been definitely established, will continue and location was made for another well directly to the south in Noble & Co.'s No. 3-C State, NE NW SW Section 24-18-37.

J. P. Cusack and others' No. 1 Moon, SW cor. NE Section 28-18-38, an outside well on the northeast, also is coming in as a producer. It was drilled to 4,200 feet and found the pay at 4,164-4,200 feet. It flowed 25 bbls. an hour for eight hours and then was treated with 3,000 gallons of acid and is waiting.

Another near completion is Continental Oil Co.'s No. 2 Grimes, CSL SE SE Section 28-18-38, an inside well, which flowed at the rate of 70 bbls. an hour through the 2½-inch at 4,220 feet, total depth. It is waiting after treating with 2,000 gallons of acid. The tubing was run to 4,060 feet.

Another near completion is the Shell Petroleum Corp.'s No. 2 Sanger, SW SE SW Section 27-18-38, which flowed 1,680 bbls. in 24 hours through the 2-inch at 4,226 feet, 2 feet off bottom. This result was after acidizing. It is being re-treated with 3,000 gallons.

National Securities Oil Co.'s No. 1 Linam, NE SE SW Section 33-18-37, southwest of production, cleaned out to old bottom at 4,272 feet and shut down. It was drilled to the present depth in 1930 and was shut down.

Jal Area

One completion and three new locations were reported in the Jal Pool. The Southern Petroleum Exploration Co.'s No. 2-A Ascarate, C SE NW Section 24-25-36, made 500 bbls. of oil and 500,000 feet of gas the first 24 hours through the 2½-inch tubing. It is a south offset to the same company's No. 1 Ascarate, which came in more than a year ago for nearly 5,000 bbls. a day and established a high record for the pool. The new well was completed at 3,286 feet. The pay was at 3,274-86 feet, the 7-inch at 3,234 feet and the tubing at 3,284 feet. The elevation is 3,104 feet.

The three new locations, all offsets, were made by Continental Oil Co. as follows: No. 13-B Sholes-3, NE cor. NW Section 13-25-36; No. 24-A Sholes-1, C NE NE Section 24-25-36; and No. 13-B Sholes-4, SE cor. NW Section 13-25-36.

Phillips Petroleum Co.'s No. 1 Worth, C NE NE Section 3-25-36, is waiting after cementing the 9⅝-inch on bottom at 1,302 feet with 350 sacks. R. H. Henderson and others' No. 1 Langley, C SE SE Section 8-25-37, is shut down for repairs at 375 feet, in the red beds. The Repollo Oil Co.'s No. 2 Gloyd, NW cor. SE Section 12-25-36, spudded to 86 feet, set the 15½-inch at 79 feet with 100 sacks, and is waiting. Continental Oil Co.'s No. 13-A Sholes-2x, NW cor. SE Section 13-25-36, is shut in at 3,325 feet and has not yet been gauged.

Maljamar Area

Maljamar Oil & Gas Co.'s No. 4 Baish, NE SE NE Section 21-17-32, which marks an extension of the Maljamar Pool one-third of a mile to the south and southeast, made 210 bbls. of oil with 1,000,000 feet of gas the first 24 hours after treating with 2,000 gallons of acid. It is a completion at 4,093 feet, total depth. The pay was at 4,065-93 feet and the elevation is 4,000 feet. The 6⅝-inch was set at 3,550 feet. The well runs higher than the three producers on the Baish permit to the north and northwest.

The Maljamar extension will be tested out a little more than a mile to the east and south of No. 4 Baish and the company is building road for its No. 1 Pearl Miller, C NW SW Section 23-17-32.

Nadine Area

Repollo Oil Co. has released a location for its No. 1 B. W. Arnold, SW NW SE Section 11-20-38, 6 miles south of the nearest producer in the Hobbs Pool.

San Simon Area

Humble Oil & Refining Co.'s No. 1 Saunders, C NE NE Section 4-22-34, is still fighting caves at a total depth of 490 feet.

Lea Area

The Texas Co.'s No. 1 Swearingin, C NE SW Section 8-20-34, is bottomed in lime at 3,881 feet and underreaming the 7-inch at 3,828 feet, and its No. 1 Moore, C NW SE Section 21-20-32, is drilling at 2,455 feet in anhydrite. Ryan Consolidated Petroleum Corp.'s No. 1 Acree, C NE NW Section 35-20-32, set the 10-inch at 1,126 feet with 50 sacks and is drilling at 1,375 feet in the red beds. Argo Royalty Co.'s No. 1 Burner, SW NE NE Section 6-20-32, has rig up and is ready to spud. R. H. Henderson and others' No. 1 Russell-Steele, C NE NW Section 24-20-33, is drilling at 1,353 feet in the red beds.

Eddy County

Neil Wills and others' No. 1 Montgomery, CSL SW NE Section 10-23-30, Big Eddy district, was a failure at 3,718 feet, total depth, and was plugged and abandoned. It topped the Delaware at 3,500 feet and had 450 feet of salt water at 3,713-18 feet. The location is 8 miles southeast of the Big Eddy test recently abandoned by Stanolind Oil & Gas Co. in its No. 1 Duncan.

A. & M. Petroleum Co.'s No. 1 State, S SW NE Section 15-21-27, Carlsbad district, was plugged and abandoned at 1,553 feet without encountering oil or water. It had reached its contract depth.

Grayburg Oil Co.'s No. 6 Burch, C SE NE Section 19-17-30, Maljamar Pool, is moving in machine for an east offset to its No. 5 Burch, which was completed last fall for 510 bbls. daily average the first week.

Getty Oil Co.'s No. 1 Malone, NE cor. SE Section 5-20-29, in the Getty Pool, which was drilled to 501 feet several years ago as a validation hole, is preparing to resume at that depth. Leonard and others' No. 1 Nunlee, C NW SW Section 27-16-30, north of the Jackson Pool, set the 6⅝-inch at 2,510 feet.

Roosevelt County

The Claudell Development Co.'s No. 1 Wilmes, C SW SE Section 21-2s-30, Pomeroy district, is shut down at 3,540 feet in white lime, waiting for return of W. J. Peterman, who has been in New York conferring with the owners. The Glorietta is expected within the next 30 feet.

Santa Fe County

Elmer Fisher's No. 1 Hill, Section 6-10n-7e, Barton district, is drilling at 2,610 feet in brown sand topped at 2,580 feet.

San Miguel County

A deep test began spudding January 31 in the Cabra Springs Oil & Gas Co.'s No. 3 Cabra Springs ranch, SW cor. Section 3-12n-22, in a 20-inch hole. Casing program calls for 400 feet of 15½-inch; 1,500 feet of 12½-inch; 2,800 feet of 10-inch and 4,000 feet of 8¼-inch. Same company's No. 1 Jones, NW NE NW Section 6-11-22, was completed as a water well at 1,320 feet. No. 1 Thompson, SW NE NE Section 22-12-22, cleaned up fishing job and is rerunning the 6⅝-inch to bottom at 3,803 feet.

Santa Fe County

Kelsey Clients Development Estate's No. 2 State, C NW Section 22-10n-10e, Crow Butte, is shut down at 1,450 feet to make new drilling contract following death of John W. McGee.

Chaves County

Los Chaves Development Co. has let contract to the Harris Drilling Co. for a 1,500-foot test in C NE Section 8-8s-23, 15 miles northwest of Roswell, and contractor is moving in machine.

Guadalupe County

Anton Chico Development Co., Ltd.'s No. 2 fee, NW NE SW Section 20-9n-17, Anton Chico grant, began spudding February 1 and set the 15½-inch at 65 feet. It is equipped with a 122-foot steel derrick and heavy duty Russian type rotary. Water will be obtained from No. 1 fee, which lost the hole at 2,587 feet.

COLORADO

Moffat County

Stanolind Oil & Gas Co.'s No. 35-SD Parkinson, SE cor. NE Section 22-4n-92, Iles Dome, is drilling at 2,353 feet. This is one of a series of wells which the company began drilling last year with a view to producing the field along the most approved lines. One test was drilled near the top of the structure to determine the thickness and porosity of the Sundance sand. This was the first well to go through the sand with the exception of a flank well on the north drilled several years ago by the Texas Co. and the Kinney-Coastal Oil Co. This was followed with wells around the edges so the field can be produced uniformly from the flanks toward the center as the water line advances. One of these tests, No. 22-SD Shaw, was in the south part of the field and proved the structure to be as productive in that area as on the north and east sides. This well made 90 bbls. an hour through the tubing. The drilling so far has not enlarged the area

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of the field, but has proven the presence of a much larger volume of oil than former drilling indicated. The company also has introduced rotary drilling. The operation is not unitized, the only other operator being the Texas Co. The plan for development has, however, been approved by the oil administration and the U. S. Geological Survey is co-operating with the company in carrying it out. The Iles Field is producing more oil than any other pool and the potential is the largest in the state.

Adams County

Riddle Petroleum Co.'s No. 1 Baxter, C SW Section 2-3s-66, Derby district, is rigging up rotary. Boilers have not yet been set.

Archuleta County

No reports have been received from the Oil City Petroleum Co.'s No. 1-A Garnett, SW Section 25-33-2e, Price district, since it was about ready to drill into sand showing oil at 970 feet. Heavy snow storm blocked the roads and communication was shut off.

Lincoln County

Consolidated Smelting & Metals Co.'s No. 1 Hancock, NE cor. SW Section 7-17-52, Haswell district, is drilling at 874 feet in an open hole. Sufficient pipe is on the ground to case the well to 5,500 feet. The derrick is an all-steel standard 87 feet high. The plant is electrically lighted and a Diesel engine is being used for power.

Park County

South Park Oil Co.'s No. 1 State, SE cor. SW Section 16-11-75, Hartsel district, is drilling at 1,010 feet.

Prowers County

Trojan Oil Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, has strung new cable and cleaned out to within 8 feet of bottom at 4,750 feet.

WYOMING

Big Horn County

The California Exploration Co. has made a location for a Madison test on the Spence Dome in its No. 1 Government, C SW SW Section 4-54-94, and will move in machine to go to 1,200 feet. This structure was drilled several years ago and some black oil production was developed in the Embar at around 500 feet. None of the wells was produced. This is the first test on the dome to go to the Madison.

Ohio Oil Co.'s No. 1 Hoskins, SW cor. Section 14-56-97, Byron Dome, is a near completion. It is coring in the Tensleep with good saturation at 5,163 feet. Yale Oil Corp.'s No. 1 Blakesley, NE NW Section 28-49-91l, Bonanza district, is drilling at 650 feet.

Carbon County

Ohio Oil Co. is preparing to go back into its old well, No. 10 Harrison & Cooper, NE NW SW Section 35-20-78, Rock Creek Field, and deepen it from 2,734 feet to test the Sundance. Same company's No. 1 Morris, C NW SE Section 6-20-77, Diamond Dome, is drilling at 5,953 feet in the red beds, and its No. 1 Kyle, NE SE NE Section 26-21-79, Medicine Bow district, joint with the California Co., is drilling at 4,049 feet in gray shale. Argo Oil Co.'s No. 1 Johnson-Union Pacific, NE cor. SE Section 5-24-87, O'Brien Springs, is drilling at 3,250 feet with the Sundance as the next objectve. Earl W. Reeder, Inc.'s No. 1 Whitford, SW SE SE Section 24-20-84, Overland Dome, is drilling at 2,721 feet, and its No. 1 Union Pacific, C SW SW Section 19-20-83, is fishing at 5,931 feet.

Natrona County

Bessemer Oil Co.'s No. 6 Government, NW Section 18-33-82, Poison Spider district, is spudding at 200 feet.

Niobrara County

Continental Oil Co.'s No. 1 Apex-3, SW NE SW Section 34-36-65, Lance Creek Field, an old gas well at 3,406 feet, is being deepened and is drilling at 3,422 feet. Ohio Oil Co.'s No. 1 Rohlf, NE SE Section 32-36-65, is drilling at 2,384 feet in shale. Interstate Oil & Refining Co.'s No. 1 Morrell, NW NE SE Section 2-39-61, West Mule Creek, is shut down at 3,050 feet. It had 2,800 feet of water in the hole at 2,975 feet.

Park County

Rocky Mountain Gas Co.'s No. 1 Oregon Basin Oil & Gas Co., C SW NW Section 32-51-100, Oregon Basin Field, is rigging up.

Sheridan County

Beaver Creek Oil Co.'s No. 1 Allison, SW SE Section 15-55-85, Beaver Creek, is drilling at 2,660 feet.

Washakie County

Chris Oil Syndicate's No. 1 Government, C SW SW Section 31-48-90, Hidden Dome, is fishing for bit at 1,830 feet.

Weston County

Irene Eaton's No. 14 Government, NE SW Section 30-46-63, Osage Field, is drilling at 1,340 feet.

Vote on Pension Plan

The stockholders of the Salt Creek Producers Association at their annual meeting on March 1 will vote on a proposal to authorize the president and vice president to vote for the adoption or rejection of a plan for the payment of annuities to retiring employes of the Midwest Oil Co. The stockholders of the last named company will meet at Phoenix, Ariz., on March 7.

MONTANA

The International Refining Co. (Texas Co.) posted notices in the Kevin-Sunburst Field, effective as of February 1, that it will limit its purchases from leases in that field to 60 per cent of December runs, including purchases from Texas Co. leases and excepting the latter's offsets to wells not under proration. Where Texas Co. wells offset producers not accepting proration, purchases will continue on the 100 per cent basis. Similar proration of production offered for purchase already is in effect by the Montana Pipe Line Co. and the Toronto Pipe Line Co.

The International company also posted a notice that it will limit its purchases in the Cut Bank Field to whatever basis of proration may be set by the Montana Conservation Board to apply generally to production in that field. Previously the three principal buyers in Cut Bank had given notice that production from new wells completed will not be accepted before spring.

The conservation board has not taken any action to prorate Montana production on the ground that it will not be necessary if operators will co-operate in holding down production to demand voluntarily by not drilling any new wells except required offsets and to meet lease requirements and by discontinuing the acidization of wells. The board through Chairman E. B. Coolidge sent out a statement under date of February 1 to all producers, transporters and refiners in Montana urging their support of the Connally bill now pending in Congress. It said that after a careful study of its provisions the members of the board are convinced that the enactment of this bill into law will be beneficial in the states where oil production is not in excess of consumer demand because it might limit, if not actually prevent dumping in such states of crude oil and products thereof unlawfully produced in states where it is necessary to curtail production. Montana being an "under-producing" state, the board believes every one interested in the state's oil industries should favor early passage of the Connally bill and ought to so inform the President and the Montana delegation in Congress.

Glacier County

One completion and one new location were reported in the Cut Bank Field. A. B. Cobb's No. 4 Walberger, SE cor. Section 35-35-6w, swabbed 10 bbls. the first day from sand at 2,764-92 feet. Total depth is 2,808 feet. Oil rose 600 feet in the hole after completion and before swabbing. This well, originally spotted in the center of the forty, was changed to 346 feet from the lot line to meet a similar footage of an offset on the east.

The new location is R. C. Tarrant's No. 1 Connolly, C NE SE Section 31-34-5w, which has rig on location.

Askins' No. 1 Askins, Lot 24, Block 33, Section 12-33-6w, in Cut Bank, is building rig. Fisk and others' No. 1 Donen, Lot 10, Block 11, Section 12-33-6w, is drilling at 1,775 feet. Hannah-Porter's No. 1 International Harvester, Lot 7, Block 18, Section 12-33-6w, is building rig. Wickstrand & Walgren's No. 1 Simero, Lot 5, Block 17, Section 12, is drilling at 2,050 feet, and Marshall and others' No. 1 Wilkins, NE SE NE Section 12, is drilling at 2,350 feet. R. C. Jeffries' No. 1 Hope, Lot 10, Block 18, Section 12, has cellar and pits completed. All of the foregoing are town lot operations.

Kately & Kaup's No. 1 Drumheller, Lot 1, Section 10-34-6w, is rigging up. Indian Oil Co.'s No. 1 Reikhoff, SW SE Section 3-34-6w, a recent completion as a small well at 2,950 feet, was deepened to 2,967 feet and improved, swabbing 132 bbls. the first 12 hours. Previously it swabbed 80 bbls. initial after standing two weeks. Montana Power Gas Co.'s No. 1 O'Brien, C SE SE Section 31-34-5w, cemented the 10¾-inch at 461 feet with 50 sacks. Top of Colorado was at 420 feet. Olive Oil Co.'s No. 3 Winkler, W NE NW Section 35-35-6w, which suspended last October after moving rig on location, is resuming and rigging up. Watson and others' No. 1 Miller, W NW NE Section 1-33-6w, is drilling at 2,735 feet.

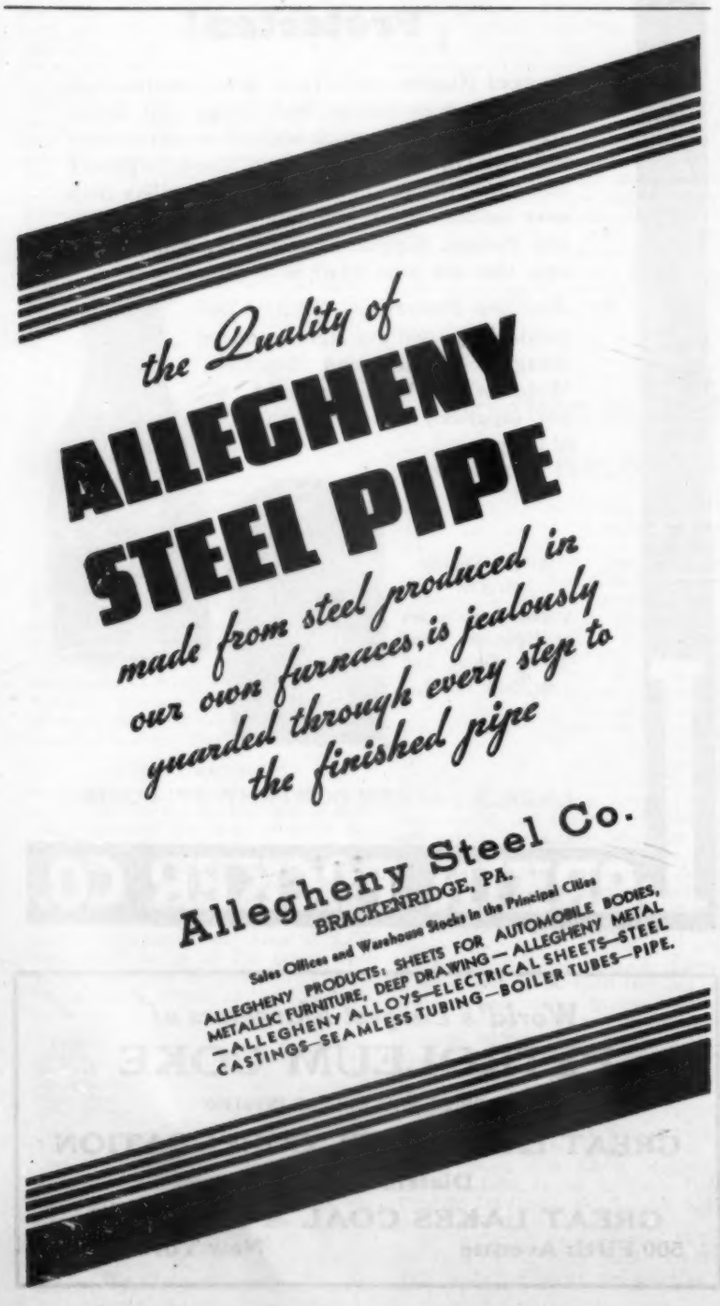
Big Horn County

Enterprise Oil Co. and others' No. 2 Lynde, SW cor. SE Section 21-6s-35, Lodge Grass Creek, which was reported abandoned without plugging at 2,621 feet, has been taken over by Fred G. Huntington, of Billings, who is preparing to resume. About 1,000 feet of cement, which backed up into the pipe when circulation was lost, will be drilled out before new hole can be made.

UPHOLDS PENNSYLVANIA TAX

WASHINGTON, D. C., Feb. 11.—The Supreme Court has upheld the validity of the 3-cent Pennsylvania state gasoline tax as applied to shipments by the Wiloil Corp. delivered to Philadelphia from Wilmington, Del., in tank cars.

The company contended the tax on the shipments was an illegal burden on interstate commerce. The court ruled in favor of the law's validity.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TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the question is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Indications Unfavorable for Finding Gasoline Substitute

Is there any indication at this time that it will be possible to make a motor fuel which will replace gasoline? The records show that the grains and some other materials furnish alcohol, coal has been converted to a liquid, and even sawdust is reported to make a good motor fuel. —G. D. R.

There are a number of materials that will serve as motor fuel but they are either too expensive or cannot be made and distributed satisfactorily. Many fuels have a higher weight unit value than gasoline but as the B.t.u. per pound increases the liquid decreases in volatility and in many instances other factors of an objectionable nature are introduced when an attempt is made to use a highly efficient fuel in the automobile engine as now designed.

The brief statement contained in report of the Aeronautical Research Committee for 1932-33 (British), as published in the Petroleum Times, December, 1933, explains the attitude of investigators with respect to the subject.

"During the year the committee has reviewed the present position of the supply of volatile fuels for aircraft engines. Clearly the most suitable fuel is that which has the highest possible content of available energy per unit weight, and which can be used with the highest thermal efficiency that mechanical considerations allow; but practice demands the use of fuels which are readily available all over the world at a reasonable cost. The idea still seems prevalent in some quarters that there may some day be brought into use a liquid fuel with a substantially higher content of available energy of combustion per unit weight than the hydrocarbon fuels now available. This we may say definitely is unlikely. On the other hand available hydrocarbon fuels are not at present used with the efficiency that should be possible; it is the fuel that sets a limit to the achievements of designers of petrol engines. The use of dopes, such as a tetraethyl lead, goes far to remove this difficulty but introduces other difficulties in practice; these are gradually yielding to continuous investigation in this and other countries. It is not, however, out of the question that a synthetic fuel may be produced which, though it may have no greater or even less available energy per unit weight than petrol, may yet have properties which permit of a higher thermal efficiency in practice."

Match Wax Melting Point and Its Application

What is the melting point of match wax? A brief description of the way match wax is used will be appreciated.—A. R.

The melting point of match wax may vary between 106° and 120° F., but much of it has a melting point close to 110° F. A more restricted use of the term means unfinished wax, that is wax containing a high percentage of oil, and this may have a much higher melting point, say 124° to 128° F., in some instances.

An interesting paper on the utilization of paraffin wax was presented before the meeting of the Institution of Petroleum Technologists, London, December 11, 1934, by P. G. Higgs, who described the use of match wax as follows:

Every match splint is treated with wax before the head is put on, in order to facilitate the ignition of the wood; for a second or two after striking, before the wood itself is well alight, the splint, saturated with wax, functions similarly to a candle. Match splints of square section are dripped in wax to a depth of about three-sixteenths inch only, but the round variety need to be completely immersed since the absence of corners causes them to ignite a little less easily. Match wax is required to have good impregnating qualities and must not so affect the striking composition, which is applied immediately after waxing, as to prolong its drying time or lessen its adhesion to the splint. It is doubtful whether a large oil-content adversely affects these properties; wax-oil blends containing up to 50 per cent oil have been stated to be satisfactory, provided that the viscosity of the oil be correctly chosen.

Origin of Degras With Tests for Determining Quality

Will you kindly explain just what is degras? I have understood that it was a grease derived from the washing of wool but find it defined as oxidized fish oil. What tests are used to show purity?—P. T.

Degras, a semi-solid emulsion, was probably first obtained from the alkaline wash used for wool scouring, and later a similar product was made as a by-product in the manufacture of chamois leather. When scouring wool the liquid containing the grease is run into tanks, where solid material settles to the bottom; the oil, fatty matter and soap rise to the top. This is removed by skimming and filtering through bagging to obtain the degras. Another method is to first treat the washings with sulphuric acid and live steam. The acid decomposes the soaps and causes a good separation of the oil and fat. The layer collecting on the surface is recovered and treated as described above. The degras from wool washings is a brown grease, having a very objectionable odor. This grade may be refined to the high quality lanolin, used for dressing skins and in the preparation of ointments.

The material made by mixing such products as the raw grease from wool scouring and oxidized fish oil is not genuine degras. Today a large part of the better grade of degras is derived from the chamois leather industry, marketed as moellon. The fish oil variety comes on the market as the product made by blowing fish oils, while held at a high temperature, and then emulsifying with water.

Some wool is cleaned with solvents, such as petroleum naphtha, ether, carbon tetrachloride, and other volatile liquids, then the extract is distilled to recover the solvent and obtain the grease as a residue.

The tests usually applied to degras are of a chemical nature; including determinations of water, unsaponificable matter, fatty acids and ash. When it is necessary to show the presence of wool degras, use is made of the Liberman test. A small portion, less than 0.5 gram, of the unsaponificable matter is dissolved in chloroform. About 3 ml. of acetic acid is added and mixed. One drop of concentreated sulphuric acid is added to this. If the color becomes rosy brown, then turns to green, the presence of wool degras is shown.

Natural degras should have a specific gravity 0.9322 to 0.9449; melting point about 100° F.; saponification number 84 to 127; iodine number 15 to 21.5; acid number 0.5 to 4.3.

Degras was formerly extensively used when compounding cylinder oils, because of its having a tendency to cause a lowering of the pourpoint. The quantity added was about 3 to 5 per cent, but modern methods produce oils of exceptionally low pourpoints, so such materials are not now used in the high-grade oils.

Modified Halphen Test for Free Sulphur in Gasoline

The lamp test for total sulphur, when made on samples before and after sweetening, gives us an indication of over-sulphuring, or free sulphur, but the time required for the determinations is an objection. Is there any test for free sulphur, which can be made quickly and which can be used for control of the treaters? —S. A. H.

The evaporation of a few drops of gasoline followed by microscopic examination for crystals of sulphur is recommended by some petroleum chemists for detecting free sulphur. However, this is not satisfactory for any distillates heavier than naphtha.

The colorimetric method proposed by Thornton and Latta (Ind. Eng. Chem. Anal. Ed., October, 1932, p. 441), which is based on the Halphen test for cottonseed oil, is said to give good results when searching for free sulphur in the lighter distillates. The test solution contains 80 c.c. each of refined unbleached cottonseed oil and carbon bisulphide, with 8 c.c. pyridine. The authors found that small quantities of free sulphur in gasoline produced a pink to red color with this reagent. However, there was no coloration when hydrogen sulphide, mercaptans, sulphur esters, organic sulphides, disulphides were added to gasoline containing no free sulphur.

Relationship of Products From Oil Shale and Coal

We have a question as to whether or not it is proper to include liquids from shale and coal in the same class with petroleum oils and shall be pleased to have any information you may have on this type of classification.—H. S. L.

Chemically and physically the liquid products derived from petroleum, shale and coal are similar. There are many authorities who have discussed the subject but the brief definition for Petroleum Oils, Item 206, proposed by the special committee of the League of Nations (Petroleum Times, Dec. 30, 1933, page 785), probably is sufficient.

"In composition and physical qualities the oils obtained from lignite-tar, schist-tar and peat-tar, and also oils from low temperature tars obtained from coal, bear a comparatively close relation with petroleum.

"The hydrocarbides of petroleum and the above mentioned oils consist chiefly of hydrocarbides saturated or unsaturated (with an open chain) with atoms of carbon or naphthene—that is to say, their hydrocarbides are of aliphatic structure, or, at all events, as regards the relations between the carbon and hydrogen, approach it very closely. The aromatic hydrocarbides (benzole, toluol, naphthaline, anthracene), which are the chief constituents of high-temperature coal-tar oils, do not occur or only occur in comparatively small quantities of the above mentioned oils. Certain Petroleums (Borneo oil) which, as already stated in the observations on Item 205, possess a high benzole content are the only exceptions. The specific gravity of lignite-tar oils and of petroleum is, moreover, lower than that of the corresponding oils obtained from coal-tar. Contrary to coal-tar, the main products of distillation are benzine or spirit, paraffin and lubricating oils. In placing these oils together in one basic item, the draft follows various existing tariffs, such as German, Belgian, and French tariffs."

Natural Gasoline Production Yield and Type of Plants

What is the total production of natural gasoline per year in the United States? How much is the yield per 1,000 cubic feet? What is the most used method for extracting it?—H. D. B.

According to the latest available information supplied by the U. S. Bureau of Mines, in the final summary for the year 1933, the total quantity of natural gasoline made during the year was 1,420,000,000 gallons. This represented an average yield of 0.92 gallon per 1,000 feet of gas treated.

There were 779 plants operated in the United States for the year. These are classified into four types: Absorption, compression, combination (absorption and compression) and charcoal. Of these approximately 50 per cent were absorption, 42 per cent compression, 6 per cent combination, and 2 per cent charcoal.

NATURAL GAS DEVELOPMENTS

Columbia Gas Reduces Number of Directors

NEW YORK, Feb. 11.—Floyd L. Carlisle has severed his connection as director of Columbia Gas & Electric Corp. He is chairman of the board of trustees of Consolidated Gas Corp. of New York. The number of directors of Columbia Gas was reduced to 19 with the resignation of Mr. Carlisle, George H. Howard, H. C. McEldowney, William C. Potter and Harold Stanley. Only four directors were elected to replace them: Edward W. Edwards of Cincinnati, Harry A. Wallace of Charleston, W. V., Douglas M. Moffatt of New York and John M. Simpson of Pittsburgh.

Wall Street viewed the change in the directorate as another step in the voluntary process of breaking up the interlocking directorate which has controlled the electric and gas properties constituting the so-called Morgan group. United Corp. has been the pivotal unit in this domination.

Indianapolis Franchise Decision Is Interesting

A decision in circuit court at Greenfield, Ind., in effect, would permit the board of county commissioners in Indianapolis to grant a franchise to the Users Gas Co. to lay pipe lines and mains, and distribute natural gas in Marion County, Indiana. The complaint of the Citizens Gas Co. of Indianapolis for a permanent injunction prohibiting the commissioners from granting an exclusive franchise was sustained on the grounds that the state laws do not give the commissioners authority to grant an exclusive franchise, but the commissioners, the court said, can modify the franchise to permit the Users Gas Co. to enter the county with the exclusive provisions of the franchise omitted.

The court ruled that the public utility acts do not require, in a case in which two companies are seeking a permit, the first utility to go to the Public Service Commission to get a franchise. A temporary restraining order against the Users Gas Co. was set aside. The court said the evidence did not show that the company planned to lay pipe lines and mains or supply gas until a permit from the Public Service Commission and a franchise from the county commissioners were granted.

LONDON GAS PROJECT

LONDON, Ontario, Feb. 9.—The London city council has decided to reopen negotiations with the City Gas Co. for a natural gas franchise agreement. Negotiations were dropped last year when the parties were unable to agree on the rate schedule and the term of the franchise. The company, which is a subsidiary of the Union Gas Co. and has been supplying gas to the city, proposes to pipe natural gas from the Dawn Field in Lambton County, a distance of approximately 55 miles. The project, including improvements to the London distributing system, is estimated to involve around $1,000,000 outlay.

CANADIAN GAS PRODUCTION

OTTAWA, Canada, Feb. 9.—Official figures show that the natural gas production from all Canadian fields in December amounted to 2,414,594,000 feet, compared with 1,937,526,000 in November and 2,980,218,000 in December, 1933.

For the calendar year 1934 the output was slightly less than preliminary estimates, amounting to 21,836,457,000 feet. This was 5.6 per cent below the 1933 production of 23,138,103,000 feet.

Judge Caster Explains Company's Case During Kansas Gas Rate Hearing

H. O. Caster, New York, former Kansan who grew up with the development of gas service in that part of the country and who is one of the directing officials of the Henry L. Doherty companies, gave the Kansas State Corporation Commission the utility side of the argument on the witness stand in the rate hearings. He made it plain that unless the regulatory bodies permit the pipe line companies to own enough gas reserves to meet the demands of their customers their is grave danger of the public finding itself without gas supplies. He also declared that if the pipe lines are denied —by legislation or otherwise—the right to handle industrial gas to make use of their facilities when domestic demands are not fully utilizing them, gas rates to domestic consumers will have to go up instead of going down.

Judge Caster told the commission that the Henry L. Doherty organization has been built up and made successful because it has not spared trouble nor expense in trying to make its service to the public as nearly perfect as possible. In order to hold house-heating customers, perfect service is essential, he said, explaining that lack of service for only a short time in extremely cold weather would drive away customers.

Pipe lines are kept in good working order for peak domestic consumer loads by utilizing them for industrial loads when the consumer demands are not great, he testified. The organization is kept at work, leakage is kept at a minimum and the revenues derived from the industrial gas help hold down domestic rates while gas is kept flowing toward the cities where the public may demand it.

Judge Caster reviewed the broken down conditions of the gas companies when he first began studying their problems 21 years ago when former Governor Hodges asked him to become attorney for the old public utilities commission. At that time customers were dissatisfied and the companies were in bankruptcy because service was so poor. Reserves were not available and line leakage was so great much of the gas put into the mains never reached burner tips. He told how conditions became so bad in Kansas City an ordinance was passed forbidding the use of gas for house heating.

Henry L. Doherty bought up the bankrupt Kansas Natural, and Judge Caster, who had returned to law practice in Topeka, joined the new organization. Mr. Doherty saw the necessity for having adequate reserves and said he would extend pipe lines to the Gulf of Mexico to get gas if rates could be obtained to justify the investment.

Then it was conceived by the Doherty organization that the best service could be given by having the one organization produce its own gas, transport it in its own pipe lines and distribute it through its own distributing companies. The companies devised new methods for reducing leakage; they spent millions of dollars in acquiring reserves and building pipe lines; they devised the method of balancing the load by handling industrial gas in greater volume as the house-heating volume increased. The business was coordinated from the Texas gas fields to the stoves and furnaces in Kansas City homes.

The state commission has shown reluctance to allow the companies to include their gas reserves in the valuations to be used for a rate base. Judge Caster declared that it would endanger the service if the reserves were reduced. He explained that the companies do not keep any more capital tied up in leases than is considered essential as there are other places the money can be used to greater advantage. Nor do the companies engage in lease-buying for speculation.

Judge Caster explained the services rendered the companies for the 1¾ per cent assessed against the local companies by Henry L. Doherty & Co., as an engineering charge. He pointed out that it was the work of this company, largely through his initiative and that of F. C. Hamilton, that it was possible to extend the pipe lines into the Texas Panhandle and acquire reserves there which would protect the public. It has been through engineering services of Henry L. Doherty & Co. that the local organizations have been able to reduce their meter operating expenses and build up efficient organizations, he showed.

Judge Caster told the commission that if its gas field reserves are excluded from the valuations and are not made a factor in establishing a rate base there will be no way for the companies to continue to hold these reserves. If they give them up, he said, service to the public is immediately put in danger.

A recess to February 19 was taken. Attorneys for the commission said the engineers for the State had been confronted with a great deal of additional work, due to a voluntary change made by the company engineers in pipe costs in the company's compiled valuation, and that a recess would be necessary to permit checking of the figures before testimony could be offered in relation to the changes. The change reduced the claimed valuation of the company by approximately $3,000,000, necessitating a change in tax estimates, interest and reduction of the estimated income necessary to provide a fair return on the property.

MICHIGAN GAS CONSUMPTION

MUSKEGON, Mich., Feb. 11.—Upwards of 10,000,000 feet of natural gas is being marketed daily from central and western Michigan fields. The American-Michigan Pipeline Co., of Muskegon, is taking about 3,000,000 feet a day from the Austin Township, Mecosta County, Field for Greater Muskegon consumers. On two below and near zero days more than 3,300,000 feet was consumed daily. West Michigan Consumers Co. also is drawing about 750,000 feet from the Muskegon Field. Consumers Power Co. is taking about 5,000,000 feet a day from the Broomfield Township, Isabella County. Field to supply Saginaw, Bay City and Midland, while the Gas Corp. of Michigan is pulling about 2,000,000 feet a day from the Vernon Township, Isabella County, Field for Mount Pleasant, Clare and other smaller communities.

BOMBAY GAS PROJECT

CHATHAM, Ontario, Feb. 9.—The Kaida-Kenya Oil & Gas Co. of Bombay, India, is undertaking the development of a potential oil and gas field about 100 miles from Bombay. Some drilling was done in this area about 35 years ago with Canadian pole tool equipment, gas being struck at around 1,000 feet, and it is planned to develop production for industrial use in Bombay. G. C. Dickerson of Chatham left recently for Bombay to take charge of operations.

Analysis of Natural Gas from Fields in Ontario

TORONTO, Ontario, Feb. 9.—A recent bulletin of the Department of Mines at Ottawa, compiled by P. V. Rosewarne and R. J. Offord, deals with the analyses of samples of natural gas from Ontario. The bulletin says in part:

"The division of fuels and fuel testing of the mines branch has continued to collect and examine samples of natural gas from different fields in Canada as part of a comprehensive survey of this important natural resource. All of the samples were examined by fractionation in the Podbielniak apparatus and by absorption and slow combustion in the Burrell apparatus. The results of these two methods of examination were combined to give a calculated composition of the samples. Except as indicated by two samples, a comparatively uniform composition exists throughout the whole area. In sample No. 21 a considerable quantity of the higher hydrocarbons was found. However, on investigation it was learned that at the time this sample was taken the well had not been cleaned out and that several barrels of oil had accumulated at the bottom of the hole. Sample No. 2 shows a large percentage of nitrogen present, but a second sample taken later from the same well had a normal amount of nitrogen. The reason for the excessive amount found in the first sample is not known.

"None of the samples examined showed an unusually large proportion of helium. Eight samples contained approximately 0.4 per cent. No sample contained as much as 0.5 per cent. The fields having the highest average were Brant, Norfolk and Haldimand."

Excluding the two "freak" samples mentioned, the analyses show percentages of methane varying from 82 per cent in one of the Haldimand wells to 95.1 per cent in the Trenton Field in Dover Township. In general, the fields of Kent, Essex and Lambton County show higher methane percentages than those farther east in Haldimand, Norfolk and Brant. The ethane percentage varies from 7.1 to 2.9, both high and low percentages being in the Haldimand Field. Propane varies from 2.7 in the Dawn Field to 0.7 in Haldimand, but the individual fields show wide variation. The butane percentage runs from 1.5 in the Dawn Field to 0.3 in Dover. Pentane percentages vary from 0.1 to 0.6. A minority of the wells show small percentages of carbon dioxide. Oxygen, absent from a few samples, varies in most from 0.1 to 0.6 per cent. The nitrogen percentage appears heaviest in the Brant and Haldimand Fields. Outside the freak No. 2 sample in the former area, which recorded 32.2 per cent, the high figure was 8.2 per cent in Brant and the low figure 0.3 per cent in the Raleigh Field, Kent County. All samples showed nominal percentages of helium, varying from 0.11 to 0.41 per cent. Specific gravities of samples varied from 0.600 to 0.707, the latter being the nitrogen-laden sample from Brant. Most of the samples run between 0.640 and 0.675.

SOUTHERN ONTARIO LINE

CHATHAM, Ontario, Feb. 9.—Pipe has been strung for the new line being laid by the Southern Ontario Gas Co. to take production from the wells of the Gas Producers Syndicate on the Pardo lease in the De Clute Field, Kent County. The line will tie in to the company's field lines south of Merlin, some 7¼ miles of 4-inch pipe being laid.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing and transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depths of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannnot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

What About Permeability Factor and Units of Measurement?

I have read with much interest your reply to the problem of W. E. S. on the subject of porosity, saturation, and recovery in the December 20 issue. I have a further question on the same subject. In computing the amount of recoverable oil per acre from a sandstone reservoir of known porosity, saturation and permeability, how is the factor of permeability used and what are the units of measurement? Five well known handbooks of petroleum engineering in my library in dealing with the subject of reservoir content and recovery do not use or refer to the term permeability. Your comment on this question or additional reference will be appreciated.—G. P. R.

Permeability is the rock's capacity for conducting liquids or gases under pressure. The records of permeability testing date back several years and the late A. F. Melcher, of Tulsa, did some of the early work for the U. S. Geological Survey. As time passed the usefulness of this information became apparent to the oil producers of the eastern oil fields. The utility of this particular phase of corr study was impaired for a time by the fact the unit of permeability measurement was not standardized.

Recently plans to rejuvenate old producing properties have become widespread and the operators, along with the operators under proration and unit operating plans, realize the need of detailed core study and particularly the need of a standard unit for measuring permeability so that the results of various technical tests can be compared.

The committee appointed to consider the method of standardizing the measurement of permeability, has named the unit the "darcy" after D'Arcy, who first formulated the liquid flow law for porous media. The darcy has been defined as follows: One darcy equals the flow of 1 c.c. of liquid of 1 centipoise viscosity 1 c.m. through the cross-sectional area of 1 square c.m. in 1 second of time and under a differential pressure of 1 atmosphere, 760 m.m. of mercury at 32° F.

The generalized formula to determine permeability constant is:

$$K = \frac{(Q)\ (L)\ (Z)}{(A)\ \ (\triangle P)}$$

K = Permeability constant.
Q = Flow rate, c.c. per second.
L = Length of test core in c.m.
Z = Viscosity of flowing medium in centipoises.
A = Area of test core, cross-section in c.m².
△P = Pressure drop through test core in atmospheres.

With new type equipment available for making tests for permeability the laboratory operator is able to secure the same K (permeability constant) whether oil, water or gas is used. It has been found that gas is the best medium to use in determining permeability because often the permeability drops with time when oil or water is used. Presumably the viscosity of the oil changes and in some cases the clay that is present in all sands to some extent swells when brought in contact with water.

When permeability data have been obtained they are useful in determining the pressure necessary for repressuring or flooding. These data properly correlated give information that helps materially in determining the characteristics of the formations and aids in planning a well spacing program.

Observation Wells Are Important in Unit Plan of Development

I would appreciate information concerning wells drilled in a field for observation purposes. When a new pool is opened up it is not clear to me why any one of the lease owners should go to the expense of drilling a well just to gather certain facts about production in that pool. Or are these observation wells drilled only where a field is developed under the unti plan? Just what facts do the operators set out to get through such wells? Is more than one drilled in a given pool? If so, is the idea to have one for just so many producing wells?—S. G. N.

Before the introduction of unit operation it probably would have been impossible to get a group of competing operators, all racing to get to the oil, to consider such a thing as drilling observation wells. With unit operation, however, where the number of wells drilled is limited, it is important to have additional wells for observation purposes, certain of which, when required, can be used for production also. It is not economically practicable to shut down wells which are regular producers, in order to obtain needed reservoir data.

Observation wells, according to C. A. P. Southwell, of the Anglo-Persian Oil Co., which uses large numbers of them, are required for the observation of gas-dome pressures, gas-oil levels, the oil and water pressures referred to a datum level, the oil-water level and a free water level.

In addition to wells used to observe gas pressures, oil-water levels, and free water levels, which will be relatively few compared with the number of producers, it is also necessary to have wells to observe the effect of production on reservoir pressures in the various producing areas. Production can then be regulated by areas, and balanced withdrawal arranged throughout the structure. The number of observation wells required and the segregation of the structure into different producing areas for control purposes will depend on the difference of permeability in the various parts of the structure.

In concentrations where migration is not very efficient, closer spacing of production wells will be necessary. Under such conditions the percentage of observation wells per production well will not be as great as for a reservoir where migration is good and in which relatively few production wells are required.

The Anglo-Persian Oil Co.'s Masjid-i-Sulaiman Field in Persia has proved for many years an excellent example of fluid control in which the number of production and observation wells is approximately the same. In structures where there is no water drive, or where the lag in water drive is sufficient to allow the gas dome to expand on the withdrawal of oil, the gas-oil level will be controlled automatically if the oil-water contact is controlled. Withdrawals should be arranged to maintain as far as possible uniform datum pressure throughout.

Why Was It Called That?

INTEREST

Interest, which the oil company or other concern must pay on its bond issues, gets its name from a Latin word spelled the same way and meaning it is of interest or importance. The practice of receiving compensation for money lent is of ancient origin. In 300 B. C., five banking commissioners (quinqueviri) were appointed in Rome to relieve those who owed money by obliging creditors to receive the goods of their debtors in payment. Scaptius, who was lending money on behalf of Brutus to the city of Salamis, in Cyprus, besieged the Senators because they could not pay the loan, augmented by interest at the rate of 48 per cent, and five of them died of hunger. One city in Asia Minor was so indebted to Roman capitalists that it sold its statues, monuments and even its sons and daughters to repay the loan.

Under-Ocean Pipe Line Laying at Coastal Wells in California

Your explanation of how drilling operations are conducted on wells located in lakes in Louisiana has led me to ask about another subject along the same line. In California where they put down wells out in the ocean it would seem to be necessary to lay pipe lines under the water. It seems to me this must be a more difficult engineering problem than laying a line across a river, and I would appreciate information concerning the procedure that is followed.—S. G. W.

Nine under-ocean pipe lines have been laid on the California coast, ranging in size from 8 to 16 inches in diameter and from 2,510 to 4,000 feet in length. Two of the original lines, one laid in 1924 and one in 1925, had to be rebuilt because of breakage and corrosion.

Except for special engineering work necessitated by unusual conditions much the same procedure is followed in all these projects. In the construction of the Associated Oil Co.'s 16-inch underwater line of 3,500 feet at Ventura the pipe was made up on shore in strings about 1,100 feet long and three coats of protective covering were applied.

Launching ways were built of two 6-inch by 8-inch timbers about 12 inches apart, resting on 2-inch by 12-inch sleepers. These sleepers were placed under the joints of the 6 by 8-inch timbers about 8 feet apart, the joints of the 6 by 8-inch timbers being staggered.

Slides of 2-inch by 12-inch lumber, with 2-inch by 4-inch guides placed 20 feet apart, were constructed on the 6 by 8-inch base. Pipe dollies were used for lining up the pipe and rolling it during welding operations. By using these dollies, it was possible to make up each 1,100-foot string without an overhand weld. It was essential that the lengths of pipe be made up straight and this was done by using a lineup clamp for holding the lengths together for tack welding.

The first string of pipe was made up directly over the launching ways and the other strings were made up parallel with them as this permitted them to be rolled on the ways by use of pinch bars. A sled was attached to the outboard end of the first string to keep the pipe from fouling the floor of the ocean and a towing clamp was fastened to the pipe about 4 feet from the outer end to which the towing cable was attached.

The launching was accomplished by the towing engine aboard a barge anchored offshore in line with the launching ways. In most cases the towing is done by either a tanker or a tug. After the first string had been pulled out, the second string was placed on the ways and welded to the first and so on until the entire submarine line was pulled into its final position.

A clamp, with a link on each side, was bolted to the inboard end of each string about 75 feet from the end. As the end of each string approached the shore, cables were hooked into the links of the clamp and thus the pipe was held in place until the following string was welded on.

The outboard end of the first string was blind-flanged and after the entire line was pulled into place the blind-flange was removed by a driver, thus allowing the pipe to fill with water. An insulating flange was installed in the line about 200 feet inshore from the high water line to arrest any current flow of water.

PERSONAL PARAGRAPHS

FREEMAN W. BURFORD, president of the East Texas Refining Company, Dallas, Tex., was in New York City last week.

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G. C. DICKERSON, of Chatham, Ontario, has sailed for Bombay, India, where he will drill for the Kaida-Kenya Oil & Gas Company, of Bombay.

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FLOYD E. WATERFIELD, chief engineer of the Oklahoma Pipe Line Company at Tulsa, spent several days in Houston, Tex., the past week on business.

• • •

GLENN SLEIGHT, formerly with the Atha Oil Company and recently engaged in independent oil and gas field map work, has been named to succeed THOMAS KNAPP in the Mount Pleasant, Mich, offices of the oil and gas division of the Michigan Conservation Department

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J. L. DANIELS, assistant comptroller of the Atlantic Pipe Line Company, with headquarters at Philadelphia, Pa., and J. N. MENDENHALL, superintendent of the land and lease department for the same company, with headquarters at Dallas, Tex., spent several days in Houston, Tex., the past week.

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H. L. O'ROURKE, Cartier Oils, Ltd., has returned to Calgary, Alberta, after spending the past 18 months in eastern Canada.

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PAUL B. BROOKS, sales manager, Parkersburg Rig & Reel Company, is on a tour of the Mid-Continent district for his company.

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L. D. ALLISON, independent operator of Shreveport, La., is moving to San Antonio, Tex., and will operate in the Southwest Texas district.

• • •

JOSEPH BARRETT, of Petrolia, Ontario, is at Goderich, Ontario, drilling salt wells for the Jordan Robert Sales Company, of Brantford, Ontario.

• • •

L. L. RECTOR, president of the Rector Well Equipment Corporation, of Fort Worth, Tex., was a business visitor to Houston, Tex., the past week.

• • •

G. F. GROGAN, Standard Oil Company executive from Chicago, has been spending the past week in Los Angeles, Calif., on a business and pleasure visit.

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W. T. WELLS, of Lane-Wells Company, Los Angeles, Calif., is in Tulsa to establish a branch office for his company here and a service station in Oklahoma City, Okla.

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R. S. STANFIELD, superintendent of the Tide Water Oil Company's refinery at Drumright, Okla., is spending several days in the company's offices in New York City.

• • •

FRANK D. HOWELL, of Brantford, Ontario, district manager of the Dominion Natural Gas Company, Ltd., was recently elected president of the Kiwanis Club of Brantford.

• • •

J. F. CORCORAN, special representative for the Trimont Manufacturing Company, is making a trip through the Texas fields, calling on the trade and the oil well supply companies.

DON DANVERS, geologist and independent operator of Laredo, Tex., was a business visitor to Houston, Tex., the past week.

• • •

DR. V. HENNY, in charge of the London office of the Universal Oil Products Company, is now visiting in the United States.

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PROF. E. N. TERRES, D.Sc., is now in the United States where he is in charge of the New York office of the Edeleanu Company, Ltd.

• • •

DR. E. FRANKLIN ARMSTRONG, an official of Herbert Green & Company, Ltd., which was recently organized to build a solvent extraction refinery in England, is now in the United States completing arrangements for the construction of the plant.

• • •

JOHN A. ROBINSON, formerly in charge of the Dallas, Tex., office of the Timken Roller Bearing Company, has been transferred to the automotive division and appointed district manager of that division with headquarters at the Chicago office. H. W. TRUMP has been promoted to the position of district manager of the industrial division with headquarters at Dallas, Tex.

J. A. KNOX has been promoted to assistant manager of the Community Natural Gas Company at Greenville, Tex.

• • •

W. V. BOWLES, independent operator and drilling contractor of Houston, Tex., spent several days visiting his old home in Mississippi the past week. He was accompanied by MRS. BOWLES.

• • •

PAT WALSH and ALEX McRAE, of London, Ontario, who have been spending four months in Canada on furlough, have returned to Talara, Peru, where they are on the International Petroleum Company staff.

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BENJAMIN L. DUBBS, president of the Port Petroleum Corporation, of Schenectady, N. Y., and GEORGE CRAMER, of the Paragon Oil Company, Green Island, N. Y., are making a Mediterranean cruise. They will return about March 7.

• • •

JOSEPH McGILL, of Petrolia, Ontario, widely known as a driller in foreign fields, was married at Detroit, Mich., recently to MRS. MINNIE BROWN, of Wardsville, Ontario. Mr. and Mrs. McGill will reside at Bothwell, Ontario, where the former is operating an oil property.

• • •

SAM B. GRAY, Hammond-Gray Tank Company, Longview, Tex., was a visitor to Tulsa last week.

• • •

C. B. BUNTE, independent operator of San Antonio, Tex., was a business visitor to Houston, Tex., last week.

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ROY D. PAYNE has been made head of the violations department of the Texas Railroad Commission at Kilgore.

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H. A. BOWLES, of the Continental Oil Company, was in Los Angeles, Calif., last week but has subsequently returned to Ponca City, Okla.

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HERBERT V. PETERSON, treasurer of Hartol Products Corporation, New York City, is enjoying a vacation of several weeks' duration at Miami and Palm Beach, Fla.

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H. E. TIMMINS, of Calgary Alberta, visited Lethbridge, Alberta, recently in connection with the operations of the Canadian Western Natural Gas, Light, Heat & Power Company.

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J. A. STROUD, JR., San Francisco, Calif., is in Tulsa on personal business in connection with development of producing properties in the Oklahoma oil fields.

• • •

AMON WILLIS, of the land department of the Magnolia Petroleum Company, Houston, Tex., was a business visitor in the general offices of the company at Dallas, Tex.

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W. D. POWER has been made head of the auditing and bookkeeping department of the Texas Railroad Commission at Kilgore. He also is in charge of the refinery and tender departments there.

• • •

FRED M. EVERETT, vice president of the Columbian Rope Company, Auburn, N. Y., and MRS. EVERETT, are members of a party which are making a South American cruise on the Santa Clara of the Grace line.

DO YOU REMEMBER?

From The Oil and Gas Journal Files

25 Years Ago

February 12, 1910

Only five wells are drilling in the Osage Nation, Oklahoma.

The new Exchange National Bank in Tulsa starts off on February 9 with a capital stock of $150,000, and deposits of $404,674.14. Directors are J. H. Evans, R. M. McFarlin, D. F. Connolly, F. B. Ufer, H. F. Sinclair, Thomas White, J. A. Hull, M. H. Mosier, R. S. Litchfield, E. D. Mitchell, and P. J. White (president).

Five oil field supply stores have been established in Preston, Okla., in the heart of the Hamilton Switch, or Preston Pool, in Okmulgee County. The biggest well in the field started off at 3,860 bbls. per day.

The Iron Mountain Oil Co. has sold its half interest in the Franchot property in Section 17-17-12, in the Glenn Pool, Oklahoma, to Capt. N. V. V. Franchot and son, Douglas, for $100,000.

20 Years Ago

February 11, 1915

The Cushing Pool in Oklahoma is producing 250,000 bbls. per day, or about 32 per cent of the country's current production. Production is greater than demand and the price of oil in Oklahoma is 45 cents per barrel.

The Prairie Oil & Gas Co. and Prairie Pipe Line Co. are now separate companies. George Coyle is general superintendent of the Prairie Pipe Line Co. John R. Manion is assistant general superintendent.

The retail price of gasoline in Los Angeles, Calif., is 11 cents per gallon, the lowest price in history. Eighteen months ago it was 18 and 20 cents per gallon.

The estate of the late Charles R. Canfield, California oil man, was appraised at $8,664,593.14. The State of California will get $488,672.73 in inheritance tax after the charity legacies are subtracted.

10 Years Ago

February 12, 1925

The 2,229 headrights, or shares, in the annual oil income of Osage Indians were worth this year $12,000 each. Mary Elkins, age 25, full-blood, owns 7½ headrights and her income was $102,000. The Logan family, father, mother and one minor child, had an income of $74,000 jointly. The Indians receive only a part of their income. The Logan family, for example, are paid $10,000, the balance being held in trust by the Government.

Gasoline sells in Tulsa for 21 cents per gallon, including a 2½-cent tax. U. S. Motor (57-60 437 endpoint) refinery price is 12 cents per gallon in Oklahoma. Thirty-six gravity Oklahoma crude sells for $1.70 per barrel.

Employes of the Standard Oil Co. of New Jersey to the number of 14,100 own 537,237 shares of the company's stock. The employe group's stock ownership is exceeded only by the holdings of John D. Rockefeller, Jr., Northern Finance Corp., Rockefeller Foundation, Harkness estate, and General Education Board.

MR. and MRS. R. D. COMPTON, of Fort Worth, Tex., have been spending a few days with relatives and friends in southeastern New Mexico, where Mr. Compton has important oil interests.

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JOHN H. WILSON, of the Colorado Geophysical Corporation, who is in charge of seismograph surveys under way in Texas, spent several days the past week at his office in Denver, and with his family at Golden, Colo.

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L. J. FULLAGER, formerly superintendent of construction for the Winkler-Koch Engineering Company, left for France during the past week and will take up work in the operation of the new Pechelbronn refinery at Donges.

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P. M. MISKELL, general manager of refineries for the Empire Oil & Refining Company, is spending several days in Washington, D. C., this week to take care of work falling to the Board of Review on refinery gasoline allocations.

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W. R. BOYD, chairman of the Refinery Board of Review, has been in Washington, D. C., for several days on business for the board. CHARLES BUERGER and C. B. WATSON, members of the board, have also been in the city.

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HERBERT CAMERON has been appointed administrative assistant of the California Department of Natural Resources, Division of Oil and Gas, and in his capacity will be the chief assistant of R. D. BUSH, head of the department.

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J. A. BERMINGHAM, vice president of the Texas Company of California, who has been attending the annual meeting of the producing committee of the company in Houston, Tex., is expected back in Los Angeles within the next week. The producing committee comprises the heads of the various divisions of the company.

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HOWARD GREEN, Kendall Oil Company, Bradford, Pa., was in Washington, D. C., for a couple of days on business for the company.

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HARRY T. KLEIN, vice president and general counsel for the Texas Company, spent a day in Washington, D. C., on business during the week.

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E. E. SOUBRY, who is general sales manager of the Anglo-American Oil Company, London, England, has been in the United States visiting the New York offices of the Standard Oil Company of New Jersey.

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RALPH B. McLAUGHLIN, secretary of the Texas Pipe Line Company, has left Washington, D. C., where he was transacting some business for the company, for New Orleans, La., and other points. He is on the Pipe Line Valuation Committee and the trip is in connection with the valuation proceedings.

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FAYETTE B. DOW, general counsel for the National Petroleum Association, has left Washington, D. C., for New Orleans, La., and Texas, on the pipe line valuation proceedings instituted by the Interstate Commerce Commission. Mr. Dow is on the valuation committee appointed by the industry to represent it before the commission.

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J. HOWARD MARSHALL, II, member of the Petroleum Administrative Board, recently assigned to be the government member of the Pacific Coast Petroleum Agency, had hardly arrived in California when he was instructed to take a plane back to Washington, D. C., to assist the board in obtaining favorable action by the Committee on Interstate and Foreign Commerce on the Connally Bill.

Work Has Been on Special Lines

Harold F. Brindel, recently elected chairman of the Petroleum Division of the American Society of Mechanical Engineers, was born in Shamokin, Pa., in the heart of the anthracite region, and after grade school education attended Carnegie Institute of Technology in Pittsburgh, Pa., for three years, taking a course in mechanical engineering. He supplemented this by several years of special work at the school after taking a position with Westinghouse Electric & Manufacturing Company.

HAROLD F. BRINDEL

Mr. Brindel was next connected with the engineering staff of Jones & Laughlin Steel Corporation, and then with Koppers Company, one of the many Mellon interests in the Pittsburgh district. While holding the latter position, he was selected in 1919 to do special work for the Gulf Oil Corporation in Pittsburgh as a member of its engineering staff.

Shortly after joining the Gulf organization Mr. Brindel was transferred to its Tulsa office to perform engineering work in connection with various departments of the Gypsy Oil Company, a Gulf subsidiary. He has resided in Tulsa ever since. Much of Mr. Brindel's work has been of a special character and he is recognized as an authority on natural gasoline plant design, air-gas lift plants and transportation of gas and oil in field or trunk lines.

Mr. Brindel was chairman of the Mid-Continent section of Mechanical Engineers in 1933-1934. While in this office he directed the work of the A.S.M.E. Unfired Pressure Vessels Committee which formulated a code adopted by the society and later incorporated in the code adopted by the American Petroleum Institute and now known as the A.P.I.-A.S.M.E. Code for Unfired Pressure Vessels for Petroleum Liquids and Gases.

Mr. Brindel has served on various technical committees of the American Petroleum Institute and is active on the Wire Rope Committee. His son, Frank D. Brindel, is a student at the University of Tulsa.

OTTO H. DUNCAN, Seminole district scout for Mid-Continent Petroleum Corporation, who has been ill, has recovered.

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R. M. JONES, assistant accountant, of Denver, Colo., has been transferred to the Midland, Tex., office of the Honolulu Oil Company.

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D. B. WILLIAMS, of the Carbide & Carbon Chemical Company, with offices in New York City, is in the Mid-Continent this week calling upon refinery executives.

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HARRY R. DENTON, veteran lease man for the Skelly Oil Company, who has been living at Fayetteville, Ark., has been called back into service as a result of western Kansas activity.

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PAUL E. HADLICK, secretary of the marketing subcommittee of the Planning and Coordination Committee, has returned to Washington, D. C., from Louisville, Ky., where he addressed the annual convention of the Kentucky Marketers Association.

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HOWARD D. ATHA, president of the Oil and Gas Association of Michigan, named the following committee chairmen at a board meeting last week: Taxation, F. A. CALVERT, Pure Oil Company; steering and code, ROBERT W. ATHA, contractor; cost production, W. M. PECK, Pure Oil Company; proration, JAMES C. GRAVES, independent operator; publicity, HASWELL W. GRANT, attorney; membership, DR. VIRGIL R. D. KIRKHAM, geologist; rules, HOWARD D. ATHA, Gordon Oil Company; marketing, DOCTOR KIRKHAM; natural gas, U. de B. DALY, Dapar Oil Company; and brine disposal, GEORGE W. MEYERS, Sun Oil Company.

D. A. LITTLE, president of the Magnolia Petroleum Company, has returned to his Dallas, Tex., headquarters after a week's business trip to New York City.

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E. J. BEARDSLEY, of the research department of Clark Brothers Company, Olean, N. Y., has just completed an extended trip through the oil fields of the Mid-Continent, and is now back at his office in Olean.

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JOHN F. DODGE, professor of petroleum engineering at the University of Southern California, was the principal speaker at the monthly meeting of the California Natural Gasoline Association held in Los Angeles.

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CHARLES F. ROESER and E. A. LANDRETH, independent operators of Fort Worth, Tex., have been presented with the Silver Beaver award for distinguished service to the Boy Scouts in the Fort Worth Area Council of that organization.

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K. C. HEALD, staff geologist for the Gulf Company, Pittsburgh, Pa., accompanied by MRS. HEALD and their son, KENNETH C. HEALD, JR., sailed from New York, February 1 on the "Britannic" for a three weeks' cruise to the West Indies, Venezuela, and Panama.

* * *

E. N. STANLEY, formerly in charge of the Railroad Commission forces at Kilgore, Tex., and G. A. SADLER, have formed the Stanley-Sadler Corporation, management engineers, to specialize in oil property management, pipe line management and appraisal work.

* * *

W. W. FONDREN, formerly vice president of the Humble Oil & Refining Company, his son, WALTER W. FONDREN, and W. B. TRAMMELL, formerly with the Houston Natural Gas Company, have organized the Fondren Production Company, and have opened offices at Houston, Tex.

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MARTIN RATHVON, general manager of the Argo Oil Company at Casper, Wyo., was in Denver, Colo., on business at the company's headquarters.

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FRANK PRESTON, who has been manager at Winfield, Kans., has been made manager of the new Hutchinson, Kans., store of the Oil Well Supply Corporation.

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SIM O'NEAL, formerly deputy supervisor for the Texas Railroad Commission at Big Spring, Wichita Falls and Kilgore, has been made supervisor in the Houston area.

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C. P. McGAHA, president of the North Texas Oil and Gas Association, announces that the organization will hold its annual banquet in Wichita Falls at 7 p.m., March 9.

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C. B. RICHARDSON, of the Consolidated Royalty Oil Company, left Cheyenne, Wyo., for the East from where he will sail for Europe and a mid-winter trip on the Mediterranean.

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PAUL OLES, former district geologist for the Sinclair Prairie Oil Company in Wichita Falls, Tex., and his assistant, GORDON W. STINE, have opened offices at Midland, in West Texas.

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W. R. COLVIN, of Tulsa, personnel director of the Stanolind Oil & Gas Company, was a visitor in Casper, Wyo., last week. He attended the quarterly joint meeting of the company's employe council at the gas plant club house in Salt Creek.

MARKET RECORD OF OIL SECURITIES

Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended February 9 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1934	1934 High	1934 Low	1933 High	1933 Low
56¾	48½	1,300	56½	53¾	53¾	Amerada Corp.	774,875	N.P.	50cQ	1-31-35	$2.00	55⅝	39	47⅝	18½
25⅝	23¾	4,500	24½	23¾	24⅜	Atlantic Refining	2,673,834	$25	25cQ	12-15-34	1.00	35¼	21½	32½	12⅜
7	6	6,200	6⅞	6	6⅛	Barnsdall Corp. A	2,248,795	$5	....	5-11-31	....	10	5⅞	11	3
7¾	6½	14,700	7	6⅝	6⅝	Columbia Gas & Elec.	11,610,036	N.P.	....	5-15-34	‡ .25	19¼	6⅝	28⅛	9
8¾	7⅜	10,500	7⅜	7⅜	7⅜	Consolidated Oil Corp.	14,218,835	N.P.	14c	10-31-34	.42	14¼	7¼	15¾	5
19⅛	16¾	10,800	18¼	17⅛	18	Continental Oil of Delaware	4,738,593	$5	25c	10-31-34	.50	22¾	15¾	19⅝	4⅛
18⅞	15¼	1,000	16¼	15⅛	16¼	General Asphalt	387,149	$10	....	6-15-32	....	23½	12	27	4⅜
3⅜	2¾	200	2⅞	2¾	2⅞	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	5⅝	2½	7⅜	1⅞
1⅞	1	700	1⅜	1⅛	1⅛	Louisiana Oil Refining	1,302,158	N.P.	....	.....	....	3⅜	¾	4	⅝
12⅞	11	3,500	11¾	11	11⅝	Mid-Continent Petroleum	1,857,912	$10	25c	11-15-34	.50	14¾	9⅛	16	3¾
14⅝	11	500	12	11	12	National Supply of Delaware	382,591	$25	....	5-15-31	....	21⅛	10	28⅝	4
10⅞	9½	5,900	10	9½	10	Ohio Oil Co.	6,563,107	N.P.	15c	12-15-34	.45	15⅞	8½	17⅝	4⅜
8½	7	400	7⅞	7½	7½	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.40	9⅜	5½	9½	3
1⅜	¾	200	⅞	⅞	⅞	Panhandle P. & R.	198,770	N.P.	....	.....	....	2½	⅝	4¼	⅝
16	14⅛	9,500	15⅝	14½	15¼	Phillips Petroleum	4,154,687	N.P.	25c	3-1-35	1.00	20⅝	13⅜	18⅝	4⅜
8¾	7⅛	1,800	7½	7⅛	7⅜	Plymouth Oil Co.	1,014,082	$5	4% Stk.	12-22-34	75c & 4% Stk.	16¾	7¼	17⅝	6⅜
7¾	6⅝	4,300	7	6⅝	7	Pure Oil	3,038,370	N.P.	....	9-1-30	....	14⅞	6⅛	15⅜	2½
32¾	29¾	1,100	32	31½	31½	Royal Dutch N. Y. shares	432,224	$14	$1.35	7-31-34	1.35	39⅛	28⅝	39¾	17⅝
26⅞	21	2,900	25½	22¼	25½	Seaboard Oil of Delaware	1,204,460	N.P.	15cQ†	12-15-34	1.00	38⅜	20¾	43⅜	15
7⅞	6⅝	2,900	7	6⅝	7	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	11½	6	11⅝	4
78¾	68¾	500	72¾	70	70⅜	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	89	57	61	28½
18¾	15	2,400	16	15	16	Simms Petroleum	461,698	$10	50c	2-1-35	.55	17⅞	7¼	12⅜	1⅞
7⅝	6½	400	7½	7¼	7½	Skelly Oil	1,008,514	$25	....	12-15-30	....	11½	6	9⅞	3
14⅞	13½	19,900	14¼	13½	14	Socony-Vacuum	31,019,694	$25	15cQ	3-15-35	.60	19⅞	12½	17	6
32⅜	29⅝	6,000	30⅝	29⅝	30⅝	Standard Oil of California	13,102,900	N.P.	25c	3-15-35	1.00	42⅞	26½	45	19½
30⅛	30	No sales	..	..	..	Standard Oil (Indiana)	15,941,894	$25	25cQ	3-15-35	1.00	32¾	23¼	34	17
43½	39⅜	13,400	40½	39⅜	40¼	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	2.00	41	26	39⅞	12⅜
67½	65	600	67½	66⅞	67	Standard Oil of New Jersey	25,740,065	$25	50cSA†	12-15-34	1.25	50⅛	39¼	47½	22⅜
21⅝	19	7,600	20	19	19⅞	Sun Oil	1,733,013	N.P.	25cQ	3-15-35	$1 & 9% Stk.	74¼	51½	59	35
4¼	3¼	3,300	4	3⅝	4	Texas Corp.	9,486,417	$25	25cQ	1-1-35	1.00	29⅜	19⅝	30⅛	10⅝
10	8⅝	6,300	9	8⅝	9	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	6½	2½	6½	1⅜
87½	84	1,100	86	84	86	Tide Water Associated	5,618,672	N.P.	....	2-16-31	....	14⅜	8	11⅜	3⅛
16⅝	14⅜	2,900	15⅜	14⅜	15⅜	Tide Water Associated pfd.	666,524	$100	$2.	12-22-34	$8.50	87	64½	65¼	23½
26⅛	24½	1,500	25⅝	24¾	25⅝	Union Oil of California	4,386,070	$25	25cQ	2-9-35	1.00	20½	11½	23⅜	8½
2⅝	2¼	200	2¼	2¼	2¼	Union Tank Car	1,200,000	N.P.	30cQ	12-1-34	1.20	25¾	15⅝	22¾	10½
25¼	23¾	9,300	24¼	23¾	24	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	5¾	2	5½	2

*Ex-dividend. †Plus extras. ‡Payable in preferred stock. §On account of accumulated dividends.

Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended February 9 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1934	1934 High	1934 Low	1933 High	1933 Low
33	30½	50	31⅛	31⅛	31⅛	Buckeye Pipe Line Co.	200,000	050	75cQ	3-15-35	$3.00	38	26	39¾	25
2⅝	1⅝	300	1⅞	1⅝	1⅝	Carib Syndicate	799,020	25c	....	.....	....	5½	1½	7¾	¼
147½	140	No sales	..	..	..	Chesebrough Mfg. Co.	120,000	$25	$1Q†	12-28-34	11.50	150	116	129	71
1½	1¼	34,500	1⅜	1⅛	1¼	Cities Service	37,804,394	N.P.	....	6-1-32	....	4¼	1¼	6¼	1½
⅛	⅜	700	⅞	⅜	⅜	Colon Oil	2,200,000	N.P.	....	.....	....	3¼	½	4	¼
⅞	⅝	800	⅞	⅝	¾	Cosden Oil	399,687	$1	....	.....	....	3⅞	½	3⅞	1⅜
13⅝	11½	6,000	12	11½	12	Creole Petroleum	6,974,356	$5	....	.....	....	14⅜	9⅝	12	4⅜
4⅞	4½	200	4¾	4¾	4¾	Darby Petroleum	509,696	$5	25c	1-25-35	.50	7½	4⅛	8	2⅛
1⅛	⅞	No sales	..	..	..	Derby Oil & Refining	263,162	N.P.	....	.....	....	2¼	1	2¾	⅜
34	34	No sales	..	..	..	Eureka Pipe Line	50,000	$50	$1Q	2-1-35	4.00	37	30	41¾	20
60⅞	55	2,200	56½	55	56	Gulf Oil Corp.	4,538,101	$25	....	10-1-31	....	76¾	49¾	62	24
48⅛	44	2,800	47	45	46⅞	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	1-2-35	$1.25	49½	33¼	105½	40
17⅛	16⅛	4,900	16½	16⅛	16½	Imperial Oil of Canada	26,857,152	N.P.	25cSA†‡	12-1-34	.92½	17⅞	12⅝	15⅞	6½
4⅛	3⅞	100	4	4	4	Indiana Pipe Line	300,000	$10	15cSA†	11-15-34	.35	6⅞	3⅝	8	3½
31⅝	28⅞	6,700	30¼	29	30¼	International Petroleum	14,247,088	N.P.	56cSA†‡	12-1-34	2.28	33⅜	19⅜	23½	8⅜
5⅝	4⅜	11,600	5⅜	5	5⅛	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	....	5	2⅛	2¼	⅛
4⅜	3⅜	No sales	..	..	..	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	6	3⅝	9½	1¼
6¼	5¼	1,500	5½	5⅜	5⅜	Lone Star Gas	5,382,723	N.P.	15c	2-15-35	‖ .16	8⅜	4¼	11⅞	4⅜
4⅝	4⅛	300	4¼	4⅛	4¼	Mountain Producers	1,682,182	$10	15cQ	1-2-35	.60	5½	4	6½	2⅛
13⅝	13	1,600	13⅝	13¼	13⅝	National Fuel Gas	3,810,183	N.P.	25cQ	10-15-34	1.00	18⅛	13⅛	20	10
7⅜	6⅝	700	7¼	6⅜	7¼	National Transit	509,000	$12.50	35cSA	12-15-34	.75	9½	7	10	5¼
2⅝	2⅛	900	2⅛	2⅛	2⅛	New Bradford Oil	1,445,202	$5	10cSA	3-15-35	.20	2½	1⅜	2¼	⅓
2¼	1⅜	600	1⅝	1½	1½	New Mexico and Arizona	1,000,000	$1	....	.....	....	2¾	1	1⅞	⅛
3⅝	3¼	100	3⅝	3⅝	3⅝	New York Transit	100,000	$5	15cSA	10-15-34	.30	4¾	3	4⅞	.5
5⅝	5¼	100	5⅝	5⅝	5⅝	Northern Pipe Line	120,000	$10	25cSA	1-2-35	.50	7	4⅞	6½	4¼
2¼	1½	2,900	1⅞	1½	1⅝	Pantepec Oil	1,608,700	N.P.	....	.....	....	2⅝	⅞	3⅜	⅛
1¼	1⅛	300	1¼	1¼	1¼	Ryan Consolidated	296,931	N.P.	....	.....	....	3⅜	⅞	4¼	⅜
6¼	5⅜	1,000	6	5⅞	6	Salt Creek Producers	1,496,859	$10	20cQ	2- 1-35	.80	7⅞	5½	9¼	3½
23¾	22¼	1,200	23⅛	22¼	23	South Penn Oil	1,200,000	$25	30cQ	12-31-34	1.20	26½	17½	22⅛	11
4	3⅞	200	4	4	4	Southern Pipe Line	100,000	$10	15cSA	3-1-35	.25	5½	3½	6	2¼
52½	50	50	52½	52½	52½	Southwest Penna. Pipe Lines	35,000	$50	$1Q	12-31-34	5.00	47	41	43	24½
21½	18	5,400	20⅜	19½	20	Standard Oil of Kentucky	2,606,983	$10	25cQ†	12-15-34	1.50	18⅜	14⅝	19¼	8⅜
9	8½	100	8½	8½	8½	Standard Oil of Nebraska	190,822	$25	....	6-20-34	.50	16⅞	8¼	20½	11
16¼	13	800	14¼	14	14⅛	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	28½	12¼	41	15½
1¼	1	3,200	1⅛	1	1⅛	Sunray Oil	1,610,810	$1	....	4-15-31	....	2	⅛	1½	¼
6⅞	5⅜	800	6	5⅜	6⅞	Texon Oil & Land	936,028	N.P.	15cQ†	12-29-34	.90	11	4⅜	13¾	6¼

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Includes 50 cents on old $25 par value stock. ‖Payable in preferred stock.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

Michigan Fields

(Continued from Page 64)

to strike gas in the Michigan Stray sands.

Isabella Township

Three tests previously drilled into the Dundee formation in Denver Township, Isabella County, responded well to acid treatment, making from 50 to 350 bbls. a day.

The Jackson-Meyer Syndicate's No. 1 Hughes, SW NW NE Section 19-15n-3w, Denver-Isabella, made 50 bbls. a day from the Dundee topped at 3,615 feet and drilled to 3,655 feet. The Mammoth Petroleum Corp.'s No. 1 Johnston and McClanahan Oil Co.'s No. 1 Wonsey, both in Section 33, Denver Township, increased from 125 and 50 bbls. a day, respectively, to 347 and 175 bbls. after acid.

The Wittmer Co.'s No. 1 Hugh McLachlen, SE SE SE Section 11-15n-4w, Isabella Township, made about 15 bbls. naturally and probably will be acid treated.

The one new gas well of the week was brought in by the Michigan Cities Natural Gas Co. on its No. 1 Paul R. Leuder, C NE NE Section 14-14n-6w, Broomfield Township, Isabella County, making 500,000 feet a day from the Michigan sands topped at 1,396 feet and drilled to 1,410 feet.

Oceana County

Two new oil tests have been started in the Oceana Field on adjoining leases developed by rival operators, H. C. Nelson of Muskegon and John B. Northcott of Fremont.

One is Nelson's No. 2 Viola Smith, NW NE NE Section 36-15n-17w, Hart Township, one location northwest of the No. 1, and the other is Northcott's No. 3 Jane Pinder, C S NW NW Section 31-15n-16w, Elbridge Township, one location east of the No. 1 Pinder. Rigs are being erected for both tests located on the northeast edge of the proved pool.

Charles H. Schulty, of Detroit, is reported to have leased part of the Knox estate, known as the Knox swamp, in Section 8-14n-16w, Ferry Township, for a new Oceana wildcat test.

Jetter Oil Co.'s No. 1 Delbert Swinton, N SW Section 11, Ferry Township, is still shut down at 2,020 feet after striking bottom water in the upper Traverse though operators are reported considering deepening to the Dundee.

Drilling of Northcott's No. 1 Wright, E half SW Section 30, Elbridge Township, is still delayed by court action with a rig partly completed on location.

Muskegon County

Reed Oil Co. is drilling in the upper Traverse formation in the No. 1 J. J. Fagan & Co., SW NE SW Section 10-10n-16w, Muskegon Township, an east extension test in the old western Michigan Field.

West Michigan Consumers Co. is plugging the No. 1 John B. Nichols, SW SE NW Section 8, Muskegon Township, after failure to clean it for reproduction in the Monroe gas sands. One of two other previous upper Traverse or Dundee producers will be deepened to the Monroe.

Western Michigan Wildcats

Drillers of the Bear Creek Oil & Gas Development Co.'s No. 1 John Fors, NE NE SE Section 29-3n-14w, a western Michigan wildcat in Heath Township, Allegan County, near the village of Dunnville, were disappointed last week when they failed to strike oil or gas production in the Dundee. Drilling at 1,850 feet the test was believed to be about 100 feet in the Monroe without a show since the upper Traverse.

Two other western Michigan wildcats 50 and 100 miles north of Muskegon were reported shut down, one above the upper Traverse and the other above the Dundee.

Dragoon Development Co.'s No. 1 W. K. Young, SW NW NW Section 15-17n-15w, Logan Township, Mason County, was shut down at 1,880 feet awaiting early completion in the upper Traverse in which a nearby well has been producing several barrels a day for some time. It probably will be completed next week.

Fischer-Robbins Oil & Gas Co.'s No. 1 fee, NE SW Section 14-24-16w, Arcadia Township, Manistee County, was shut down in the lower Traverse at about 1,200 feet.

F. Irwin Bryan and Harry T. Martin's No. 1 A. G. Aldrich, NE SW SW Section 3-8n-11w, Plainfield Township, Kent County, also is expected to drill into the Dundee during the week.

Wildcat Developments

Pure Oil Co.'s No. 1 Lucy Baker, SW NW SE Section 15-13n-5w, Fremont Township, Isabella County, which drilled into a producing show of oil the week before in the upper Traverse formation, struck water just below the oil and continued toward the Dundee. It is located near the village of Winn. Casing filled up about 1,800 feet with oil before water was encountered 135 feet in the Traverse which was topped at 3,118 feet. It was drilling below 3,250 feet as the week closed.

Pen-Yan Investment Co.'s No. 1 A. E. Ackerman, SW NW NW Section 12-16n-4w, a semiwildcat test northeast of the proved producing area in Vernon Township, Isabella County, was drilling below 3,400 feet and due to test the Dundee this week.

D. W. Null, trustee's No. 1 Prout, SW SW SW Section 7-15n-3w, Denver Township, also was drilling below 3,400 feet and due to test the Dundee this week.

Howard F. Patterson's No. 1 David Haskins, NW NW SW Section 25-13n-2e, Ingersoll Township, Midland County, was shut down waiting for casing at 3,670 feet in the Monroe with oil and gas showings reported coming through 2,500 feet of water. Water was encountered in the Dundee and the hole drilled 200 feet deeper.

Daily Crude Oil Co. will test the Dundee in No. 1 Joseph Martin, S 50 acres NW Section 28-13n-1e, Mount Haley Township, Midland County, within a week as it was drilling below 3,300 feet. The Martin well is located north of the Atha Oil Co.'s No. 1 Moran, discovery well in the prospective new Mount Haley Township Pool about 3 miles east of the big Porter Pool.

When the hole caved nearly a mile down in the Talbot Oil Co.'s No. 1 McPherson Estate, NE NE NW Section 35-3n-4e, Howell Township, Livingston County, drilling into the Trenton formation was delayed. The cave-in caused a bad fishing job at 4,980 feet after the Trenton had been topped and casing was being run to this point.

Black Diamond Petroleum Syndicate's No. 1 Vaughn, NW NW NE Section 28-24n-4w, Lyon Township, Roscommon County, also was expected to test the Dundee formation after setting casing at 3,150 feet.

Nearing Completion

Several other tests in proved areas also were nearing probable completion this week. They included: Richard Hall's No. 1 Bond-Harris, Section 7, Carter Lease, Inc.'s No. 6 Carter, Section 18, and Pure Oil Co.'s No. C No. 4 Root, Section 20, all in Porter Township, Midland County.

New Locations

Five permits for new locations in five different townships and counties were issued by the oil and gas division of the State Conservation Department. Two were in proved fields and three in wildcat territories.

The two in proved areas were the Morris Oil & Gas Corp.'s No. 2 Frank and Catherine Epple, NE NE SE Section 19-15n-3w, Denver Township, Isabella County, and the Great Central Oil & Gas Co.'s No. 1 E. Scott, SE SE NW Section 8-14n-2w, Greendale Township, Midland County.

The wildcats were: Smith Petroleum Co.'s No. 2 Edward E. Parlberg, C S half NW SE Section 20-10n-6e, Birch Run Township, Saginaw County; R. L. Hill's No. 1 Ela Jaqua, SE NE SW Section 6-21n-3e, Mills Township, Ogemaw County, and the Alma-Mecosta Oil & Gas Corp.'s No. 1 Lewis, C SE SE Section 15-15n-8w, Martiny Township, Mecosta County, issued in place of the same company's No. 1 S. B. Sullivan, C NE SW Section 19-14n-8w, which was canceled. The Sullivan permit was issued August 2, 1934, but never drilled.

Central West Fields

(Continued from Page 68)

In Lorain County, J. W. Cushing's No. 1 Frank Barr farm, Lot 14, Avon Township, is a gas well at a total depth of 2,133 feet. In Holmes County, Ohio Fuel Gas Co. is drilling No. 1 Adeline McKonley farm, Section 27, Washington Township, and No. 1 on the Margaret Batdorf farm, same section. Same company has a rig for No. 1 Alonzo Bucy farm, Section 10, Richland Township, and has a location staked for No. 2 on the Charles McFarland farm, Section 11, same township. Minor and others are drilling No. 3, Mathias Myers farm, Lot 32, Ridgeville Township.

In Richland County, Ohio Fuel Gas Co.'s No. 3 Minerva Ward farm, Section 16, Worthington Township, is a gas well at 2,422 feet.

In Summitt County, East Ohio Gas Co. is drilling No. 1 A. M. Wise farm, Section 19, Green Township, also No. 1 William Ritter farm, Section 18, same township. In Licking County, G. H. Long is drilling No. 3 Eliza J. Fulton farm, Section 24, Madison Township. A. Stricker abandoned No. 6 Homer L. Jones farm, Section 10, Mary Ann Township. Settles Oil Co. made a location for No. 5 on the Oren Evans farm, Section 18, same township.

In Muskingum County, Pure Oil Co.'s No. 3 E. J. Hankins farm, Jackson Township, produced an initial of 30 bbls. at 3,226 feet, and same company is drilling No. 3 Zonetta Brown farm, same township.

Stark County

In Stark County, Ohio Fuel Gas Co.'s No. 2 Clara Warstler farm, Section 18, Plain Township, is a gas well at 4,416 feet. Hoover Development Co.'s No. 2 Harry W. Hoover farm, Section 9, same township, is a gas well at a depth of 4,545 feet. East Ohio Gas Co. is drilling No. 1 Harvey Miller farm, Section 8, same township. In Perry Township, White & Lyyons have a rig for No. 2 Hattie Leaman farm, Section 26. East Ohio Gas Co. has a rig for J. & C. Albright farm, Section 8, Jackson Township.

In Guernsey County, Blank Brothers' No. 4 R. A. McBride and others farm, Section 5, Cambridge Township, is a gas well at 1,273 feet. Miller & Jewell's No. 1 Charles V. Alabaugh farm, Section 27, Oxford Township, is at a total depth of 1,330 feet. In Willis Township, J. T. Roach is shut down on No. 6 on the Jennie Rose farm, Lot 20.

In Meigs County, Ohio Fuel Gas Co.'s No. 1 Earl T. Winters farm, Section 36, Lebanon Township, is a gas well at 2,013 feet. Meigs Development Co.'s No. 1 Charles G. Ours farm, Section 25, same township, is a gas well at 2,024 feet. Ray Holmes and others are drilling No. 1 Emel Johnson farm, Section 35, same township, and Ohio Fuel Gas Co. has a location staked for No. 1 on the E. E. Brewer farm, Section 20, same township. In Bedford Township, Meigs Development Co. is drilling No. 2 on the Edith Star farm, Section 10.

In Perry County, Wiser Oil Co. is drilling on the Franklin King farm, Section 35, Thorn Township.

In Delaware County, Chester Wise is drilling around 3,032 feet in the Herman D. Vance farm, Section 3, Orange Township.

In Tuscarawas County, Frank Walton and others are drilling No. 1 Joseph Dunlap farm, Lot 12, Rush Township. Capital Drilling Co. is drilling No. 6 Stewart Asher farm, Lot 19, Washington Township.

In Wayne County, Ohio Salt Co. is reported to be drilling at No. 1 on its own property, Section 12, Chippewa Township. Same company is drilling No. 1 on fee property, Section 12, Milton Township.

California Fields

(Continued from Page 71)

and is still going strong. This well came in flowing about 890 bbls. per day but has consistently built up.

The Union is grading location for No. 8 Vidor to be drilled in this field in the immediate future and spud should be made along about the end of February. Much of the lowlands in this section of the Playa Del Rey Field was inundated by torrential rains during the early part of the week and consequently work has been retarded to some extent. Up on the Palisades, however, the rains did not cause any delay in drilling operations. In the lower section of the field, the Union and Ohio are obliged to build up locations for new wells due to the marshy condition of the acreage. This is usually done by hauling in sufficient dirt to build a road and base for the rig but it is customary to drive piles as an added safety factor before derrick construction is started.

Kansas Wildcats

(Continued from Page 66)

Gypsy Oil Co.'s No. 1 Keesling, NW NW SW Sec. 10-20-9w.
Rigging up.

Johnson & Carey et al's No. 1 Dyck, SE NE SE Sec. 35-22-5w.
Wilcox 3,968-85 ft.; set 6-in. 3,968 ft.; core 3,966-85 ft. saturated.

Lario O. & G. Co. et al's No. 1 Schreg, NW SE SW Sec. 22-19-4w.
T.D. 3,475 ft.; U.R. 6-in. csg.

Langston et al's No. 1 Markle, NE SW Sec. 1-20-9w.
H.F.W. 3,329 ft., T.D.; dry and abd.

Marathon Oil Co.'s No. 1 Grove, SE NE NW Sec. 29-19-9w.
Location.

Vickers Pet. Co. et al's No. 1 Gouldner, SE NE NW Sec. 16-18-9w.
Building rig.

Tingling et al's No. 1 Maupin, NW SW SW Sec. 1-18-8w.
Viola 3,223-39 ft.; pumped 104 bbls. oil, 2 bbls. wtr. in 24 hrs.; acidized and pumped 60 bbls. oil with show wtr.; to deepen.

ROOKS COUNTY

Stearns & Streeter's No. 1 Meyers, NE NW NW Sec. 34-9-16w.
Oswald 3,084 ft.; T.D. 3,088 ft.; running 6-in. csg.

RUSH COUNTY

Lario O. & G. Co. and Phillips Pet. Co.'s No. 1 Benbow, NW NE NE Sec. 12-17-19w.
T.D. 3,185 ft.; fishing.

RUSSELL COUNTY

F. Brousk and R. D. Bailey's No. 1 Kluesner, NW SE Sec. 34-15-12w.
Rig.

Blair et al's No. 1 Fink, SW NW SE Sec. 16-14-14w.
Oswald 3,055 ft.; acidized at 3,154 ft. and pumped 320 bbls. oil; 6-in. 3,246 ft.; granite wash 3,318 ft.; T.D. 3,479 ft.; H. F.W.; P.B. to 3,170 ft. and C.O.

Eldorado Ref. Co.'s No. 1 Walz, SE NE NW Sec. 29-13-11w.
Set 10-in. csg. 2,090 ft. and S.D.

Hartman & Blair's No. 1 Furthemyer, NE cor. Sec. 1-14-14w.
15-in. 360 ft.; drlg. 505 ft.

Hartman & Blair's No. 1 Garrett, SW SW NW Sec. 24-13-12w.
Moving in material.

Hartman & Blair's No. 1 Krause, NE NW NW Sec. 5-15-15w.
Drlg. 990 ft.

Hartman & Blair's No. 1 Sullivan, NE NE SE Sec. 2-14-15w.
Drlg. 2,910 ft.

Hartman & Blair's No. 1 Gurney, SE SE NW Sec. 23-14-14w.
Oswald at 2,932 ft.; 6-in. csg. 2,953 ft.; pay 3,001-06 ft.; swabbed 130 bbls. in 18 hrs.; acidized.

Lario O. & G. Co. et al's No. 1 Nuss, NW SW SW Sec. 11-16-14w.
Location.

Lario O. & G. Co. et al's No. 1 Moore, 760 ft. S and 660 ft. E, NW cor. Sec. 34-13-12w.
10-in. 2,408 ft.; drlg. 2,425 ft.

Murphin et al's No. 1 Funk, SW cor. Sec. 19-12-13w.
Spudded and S.D.

Wolf Creek Oil Co.'s No. 1 Donovan, SW SW SE Sec. 10-15-15w.
6-in. 3,077 ft.; drlg. 3,100 ft.

Wolf Creek Oil Co.'s No. 1 Kraft, SW cor. Sec. 26-16-11w.
Rig.

Wolf Creek Oil Co. et al's No. 1 Penn Mutual, SW cor. Sec. 22-15-15w.
Rig.

SALINE COUNTY

Dieter et al's No. 1 Herrington, NE NW SE Sec. 3-13-1w.
T.D. 2,435 ft.; C.O.

SCOTT COUNTY

Atlantic Oil Prod. Co.'s No. 1 Vanimen, C SE NE Sec. 15-20-33w.
6-in. liner 4,650 ft.; pay 4,670-86 ft.; acidized and pump 572 bbls. in 24 hrs.; T.D. 4,701 ft.; no increase.

SEDGWICK COUNTY

Aladdin Pet. Co. et al's No. 1 D. Lauck, SE NE NW Sec. 21-28-2.
Drlg. 2,335 ft.

Allison & Fitzwilliams et al's No. 1 Struthers, NE SW Sec. 24-28-2w.
H.F.W. 3,176-87 ft.; T.D. 3,295 ft.; fishing.

Cameron, Derby Oil Co. and Trees' No. 1 Brainard, SW SE NW Sec. 19-24-2.
Spudded and S.D.
Magnolia Pet. Co.'s No. 1 Bartholomew, SE SE SW Sec. 30-27-4w.
Chat 2,682 ft.; 9-in. 3,692 ft.; standardising.
Syndicats O. & G. Co. et al's No. 1 Ratcliff, NE NW NW Sec. 30-26-2.
P.B. to 3,985 ft.; fishing.

SHAWNEE COUNTY

Jim Edwards' No. 1 Detrick, C NW NE Sec. 21-14-15.
Drlg. 560 ft.

STAFFORD COUNTY

Atlantic Oil Prod. Co.'s No. 1 Hohner, NW SE SE NE Sec. 31-23-14w.
Simpson 3,975 ft.; coring 4,039 ft.
Atlantic Oil Prod. Co. and Phillips Pet. Co.'s No. 1 Guthrie, C NW NW Sec. 16-26-11w.
8-in. 3,073 ft.; drlg. 3,165 ft.

SUMNER COUNTY

T. Palmer's No. 1 Wentworth, NW NW NE Sec. 9-35-2.
Drlg. 2,050 ft.
D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW Sec. 15-35-1w.
Moving in material.

TREGO COUNTY

Central Commercial's No. 1 Wagg, NW NW SE Sec. 17-13-21w.
12-in. 1,450 ft.; drlg. 1,461 ft.
A. D. Morton's No. 1 Jones, SE cor. Sec. 20-12-23w.
Rig.

La.-Ark. Wildcats

(Continued from Page 60)

W. T. Coleman's No. 1 Ferguson 600 ft. N, 330 ft. E, SW cor. Sec. 18-12-12.
Drlg. 320 ft.
Dempsey & Manziel's No. 1 Thigpen, 375 ft. S, 330 ft. W, NE cor. SW NE Sec. 33-13-13.
Testing 1,745 ft.
DeSoto Pet. Co.'s No. 1 B. Y. Wemple, C S½ SE NE SW Sec. 14-12-11.
S.D. 2,073 ft.
E. L. Foster's No. 1 Youngblood, Sec. 9-11-14.
S.D. 1,820 ft.
Bailey Gaunce's No. 2 B. F. Jenkins, Sec. 35-13-12; O.W.D.D.
Drlg. 3,345 ft.
Leslie Prod. Co.'s No. 1 Ramsey, 150 ft. N and W of C Sec. 36-11-11.
Set 10-in. 45 ft.
Ben F. Smith's No. 1 Bonds, 200 ft. E, 500 ft. N, SW cor. Sec. 23-12-11.
S.D. 2,749 ft.
National Oils, Inc.'s No. 1 B. Y. Wemple, NW SW Sec. 14-12-11.
S.D. 120 ft.

EAST CARROLL PARISH

Century Oil & Drlg. Co.'s No. 1 Olive Dell, 660 ft. S, 300 ft. W, NE cor. Sec. 34-21-21e.
S.D. 150 ft.

GRANT PARISH

C. & S. Oil Corp.'s No. 1 Swope, Sec. 17-19-1e.
Derrick pattern.

LA SALLE PARISH

J. B. Collins, tr.'s No. 2 Urania, Sec. 7-10-2e, W.O.S.R. 1,528 ft.
Fred Graham's No. 1 Urania, 300 ft. N, 150 ft. E, SW cor. SW NW Sec. 18-20-2e.
W.O.S.R. 1,521 ft.
F. A. Trichelio's No. 1 Urania, Sec. 3-9-1e.
S.D.; junked hole 1,491 ft.; (corrected).

NATCHITOCHES PARISH

Clyde Crichton's No. 1 Friedman Est., 406 ft. N, 428 ft. E, SW cor. Sec. 52-7-6.
Drlg. 2,210 ft.
Jack Lent's No. 1 Brown Lbr. Co., 400 ft. S, 300 ft. E, NW cor. NE SW Sec. 27-9-13.
S.W. and abd. 3,002 ft.
Missouri Drlg. Co.'s No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,032 ft.
Roy A. Raines et al's No. 1 Raines est., 330 ft. N and E, SW cor. Sec. 8-9-10.
S.D. 3,150 ft.

OUACHITA PARISH

Hatcher & Evans' No. 11 fee, 2,065 ft. S, 3,394 ft. E, NW cor. Sec. 17, in Sec. 41-19-4e.
Set 6-in. 2,154 ft.

RAPIDES PARISH

C. D. Lee, trustee's No. 1 Baird Est., SE cor. Sec. 40-5n-1w.
Rigged and waiting orders.

RED RIVER PARISH

Sterling O. & R. Co.'s No. 1 Long Bell, 150 ft. N and W, SE cor. NE SE Sec. 19-13-9.
Coring shale 2,525 ft.
J. S. Tuffree's No. 1 Wilkinson, 1,320 ft. S and W, NE cor. Sec. 11-12-11.
Drlg. 1,180 ft.

SABINE PARISH

H. J. Brothers et al's No. 1 Edwards, 300 ft. S and W, NE cor. SW NW Sec. 29-9-13.
Pumped off; S.D.; W.O. 1,887 ft.
R. B. Campbell et al's No. 1 Cook Land Co., 150 ft. N, 300 ft. W, SE cor. NW NW S.D. 2,120 ft.
Frank R. Foster, Inc.'s No. 1 Phillips, 250 ft. N, 285 ft. E, SW cor. SW NW Sec. 16-9-11.
Rigging up.
Helena Oil & Gas Co.'s No. 1-B Graham, 330 ft. S and W NE cor. NE NW Sec. 20-9-13.
S.D. 2,000 ft.
Lawson-Leavell's No. 3 Bank of P. H., 330 ft. S and E, NW cor. NW NE Sec. 29-9-13.
Derrick.
Lawson-Leavell's No. 1 Whitney Corp., 330 ft. N and E, SW cor. NE SW Sec. 5-9-13.
S.D. 2,717 ft.; old T.D. 3,005 ft.
Jack Lent's No. 1 Williams, Sec. 13-7-11.
Set 10-in. 62 ft.; S.D. 440 ft.
Dr. O. B. Hicks' No. 1 Neal, SE SW SE Sec. 18-9-12.
Set 10-in. 40 ft.
Strickland et al's No. 1 Whitney Corp., Sec. 33-10-12.
Recmt. 8-in.; T.D. 1,590 ft.

TENSAS PARISH

Schumacher, tr.'s No. 1 Curry, Sec. 39-11-12e.
Arranging to deepen 2,750 ft.

UNION PARISH

Carbons Con.'s No. 8 fee, C NW NW SW Sec. 35-22-3e.
Drlg. 80 ft.
Interstate Nat. Gas Co.'s No. 6 Spencer, Sec. 2-20-3e.
Set 12½-in. 182 ft.; drlg. 2,050 ft.

ARKANSAS

ARKANSAS COUNTY

Grand Prairie Realty Co.'s No. 1 Fischer, 200 ft. S and E, NW cor. NE NW Sec. 6-6s-4w.
Coring 2,340 ft.
Gulf Ref. Co.'s No. 3 Chew, Sec. 33-21-16.
Set 12-in. 140 ft.; reaming 1,420 ft.
Recovery Oil Co.'s No. 1 W. L. Sibley, Sec. 15-19-14.
Set 10-in. 100 ft.; S.D. 883 ft.
G. R. Stevens' No. 2 Hart, Sec. 22-21-16.
Derrick.
Texas Co.'s No. 3 School fee, Sec. 16-20-15.
Derrick.

ASHLEY COUNTY

J. D. Houseman et al's No. 1 Boreine Farms, 660 ft. S and W, NE cor. Sec. 1-18-8.
Rigging up.

HEMPSTEAD COUNTY

A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26.
S.D. 1,992 ft.

LAFAYETTE COUNTY

W. H. Harvey's No. 2 Allen, Sec. 18-19-24.
S.D. 850 ft.
Kamon & Neely's No. 1 Cockran, NW cor. SE SW Sec. 26-19-25.
Set 12½-in. 140 ft.
Riggs Bros.' No. 1 Dubose, SE cor. SW NW Sec. 35-15-24.
Rigging up.

LONOKE COUNTY

J. G. Strahan's No. 1 Hardin, Sec. 18-3s-7w.
S.D. for fuel 1,630 ft.

MILLER COUNTY

Ed Donohue's No. 2 Beck, Sec. 32-15-26.
Rigging up.
Duluth-Ark. Oil Co.'s No. 4 Beck, SE cor. SE SW Sec. 34-15-26.
W.O.S.R. 2,941 ft.
Fitzwater et al's No. 1 Norson, SW cor. SE SW Sec. 20-15-27.
S.D. 3,177 ft.
Ark. Oil, Gas & Ref. Co.'s No. 1 Beck, SW cor. NW SW Sec. 34-15-26.
1,200 ft. oil in hole at 2,920 ft.
King Oil Corp.'s No. 1 C. H. Schroder, 300 ft. N, 330 ft. E, SW cor. SW NE Sec. 24-14-28.
S.D. 3,167 ft.
King Oil Corp.'s No. 1 Anderson, 350 ft. E, 200 ft. S, NW cor. SW NE Sec. 16-14-27.
Set 10-in. 81 ft.
Magnolia Pet. Co.'s No. 7 Olivet, 330 ft. S and W, NE cor. NW Sec. 2-16-26.
Set 12½-in. 247 ft.; drlg. 3,533 ft.
Magnolia Pet. Co.'s No. 6 Olivet, 330 ft. S and E, NW cor. NE NW Sec. 2-16-26.
W.O.S.R. 2,933 ft.
A. C. Roan's No. 1 Frost Est., 150 ft. N and W, SE cor. SE SW Sec. 8-15-26.
Set 10-in. 120 ft.
Lee Timberlake's No. 1 Frost Est., 330 ft. N and E, SW cor. SW SE Sec. 27-15-26.
Drlg. 1,960 ft.
John Wrather's No. 2 H. E. Beck, 330 ft. N and W, SE cor. SW SE Sec. 34-15-26.
Drlg. shale 1,462 ft.

OUACHITA COUNTY

F. A. Book et al's No. 1 Arnold, Sec. 34-15-16.
S.D. 2,032 ft.
S. J. Carnes' No. 1 L. Caldwell, 330 ft. S and E, NW cor. Sec. 12-14-19.
S.D. 103 ft.; (corrected).
T. J. Gaughan's No. 2 M. Bragg, 330 ft. S and E, NW cor. NE SE Sec. 25-13-18.
S.W. and abd. 1,366 ft.
T. J. Gaughan's No. 1 Cartier, 330 ft. S and E, NW cor. SE SE Sec. 25-13-18.
Dry and abd. 1,390 ft.
Kraft Oil Corp.'s No. 1 Rath & Cartier, 330 ft. S and E, NW cor. SW SW Sec. 32-13-17.
Rigging up.

UNION COUNTY

Alice-Sidney Oil Co.'s No. 9 E. F. Gregory, 330 ft. N and E, SW cor. NW SW Sec. 11-17-14.
S.W. and abd. 2,500 ft.
J. E. Crosbie, Inc.'s No. 1 W. E. Gregory, 330 ft. S and E, NW cor. NE Sec. 15-17-14.
T.A. 3,502 ft.
J. E. Crosbie, Inc.'s No. 2-A E. F. Gregory, 330 ft. N and E, SW cor. NE SW Sec. 10-17-14.
Derrick.
Durand Dev. Co.'s No. 1 Exzell, 330 ft. S and W, NE cor. Sec. 13-17-16.
S.D.; W.O. 3,512 ft.
Gulf Ref. Co.'s No. 49 L. Werner, 4,620 ft. N, 60 ft. E, SW cor. Sec. 5-16-16.
Rigging up.
H. L. Hunt's No. 11 J. D. Gregory, C NE SW SE Sec. 10-17-14.
Comp.; flowing 165 bbls.; 3,450 ft.
E. R. Henderson's No. 2 Vinea, NW cor. SW SE Sec. 29-18-14.
W.O.S.R. 2,305 ft.
H. L. Hunt's No. 15 E. F. Gregory, 330 ft. N and W, SE cor. Sec. 10-17-14.
Coring 4,388 ft.
H. L. Hunt's No. 18 E. F. Gregory, 330 ft. N and E, SW cor. Sec. 11-17-14.
Derrick.
T. L. James & Co.'s No. 1 Gregory, 330 ft. S and W, NE cor. N½ NW SW Sec. 16-17-14.
Set 7-in. 3,365 ft.; drlg. plug.
Mrs. R. K. Jones et al's No. 1 Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Set 7-in. 2,746 ft.; T.D. 2,765 ft.
Lion Oil Ref. Co.'s No. 6 H. L. Rowland, 330 ft. S and W, NE cor. Sec. 15-17-14.
T.A. 3,427 ft.
Marine Oil Co.'s No. 7-A W. B. Thompson, 330 ft. N and W, SE cor. SW SE Sec. 3-18-13.
Rigged up and S.D.
Monroe Prod. Co.'s No. 1 Z. Bolinclair, 330 ft. S and W, NE cor. Sec. 16-17-14.
Dry and abd. 3,503 ft.
C. H. Murphy's No. 1 Union Saw Mill Co., 330 ft. N, SE cor. NW SE Sec. 30-18-11.
Dry and abd. 3,711 ft.
C. E. Murdock's No. 8 J. M. Gregory, C NW NE SE Sec. 10-17-14.
Set 10-in. 182 ft.; drlg. 2,500 ft.
C. E. Murdock, Inc.'s No. 7 J. M. Gregory, 330 ft. N, 330 ft. W, SE cor. NE SE Sec. 10-17-14.
W.O.S.R. 3,318 ft.
C. E. Murdock's No. 1 R. Pumphrey, C SW NW NE Sec. 11-17-14.
Derrick.
Reuter Oil Co., Inc.'s No. 1 J. L. Kinard, 330 ft. S and E, NW cor. SE NW Sec. 32-18-14.
Pumping 2,189 ft.; no gauge.
Geo. L. Pace's No. 1 Union Saw Mill Co., 330 ft. S and W, NE cor. NE SW Sec. 34-18-12.
Drlg. 1,975 ft.
S. H. A. Oil Co.'s No. 5 Taylor, Sec. 10-17-14.
Set 7-in. 3,333 ft.; T.D. 3,343 ft.
Skelly Oil Co.'s No. 7 Perdue, 330 ft. N and E SW cor. SE NW Sec. 10-17-14.
W.O.S.R. 3,330 ft.
Grady Vaughn's No. 1 T. B. Rowland, 330 ft. S and E, NW cor. Sec. 14-17-14.
Derrick.

MISSISSIPPI

AMITE COUNTY

Mineral Resources, Inc.'s No. 1 Anderson, C NE NW Sec. 14-3n-3e.
S.D. 550 ft.

BOLIVAR COUNTY

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
S.D. 20 ft.

CLARKE COUNTY

Clarke County Oil Co.'s No. 1 Dora Butler, C SW SW Sec. 15-3n-16e.
Set 10-in. 63 ft.

HARRISON COUNTY

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
S.D.; W.O. 1,100 ft.

ISSEQUENA COUNTY

Pelican Oil & Gasoline Co.'s No. 1 Martin & Bender, 300 ft. S and E, NW cor. Sec. 11-12n-8w.
S.D.; curing titles, 3,227 ft.

JONES COUNTY

Snow-Black Pet. Co.'s No. 2 Watson, 530 ft. W, 200 ft. S, C Sec. 34-7n-13w.
T.A. 3,900 ft.

LAUDERDALE COUNTY

Bob Dalton's No. 1 Bounds, Sec. 34-7n-15e.
Set 10-in. 560 ft.; S.D.; W.O.

MONROE COUNTY

P. J. McAlpine's No. 1 Frank Rye, Sec. 15-15s-17w.
S.D. 2,910 ft.
P. J. McAlpine's No. 1 Crook, 1,000 ft. S 90 ft. W, NE cor. Sec. 15-13s-13w.
Arranging to set 6-in. 1,514 ft.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, SW cor. SW SE Sec. 24-2n-9e.
Partly rigged up and S.D.

WASHINGTON COUNTY

Perkins & Dees' No. 1 Lee, 1,500 ft. E, 500 ft. N, SW cor. Sec. 32-15n-3w.
Set 10-in. 300 ft. and S.D.

WINSTON COUNTY

Jack Vale et al's No. 1 Moody, 713 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-12n-14e.
S.D. 785 ft.

La.-Ark. Proven Fields

NORTH LOUISIANA

CADDO—BLANCHARD

M. Segall's No. 5 Sharpe, Sec. 11-18-16.
Rigged up and S.D.

CADDO—HOSSTON

Shoreline Oil Corp.'s No. 44 Crystal, 330 ft. S and E of C Sec. 13-21-16.
Derrick.

CADDO—RODESSA

United Gas. Pub. Ser. Co.'s No. 1 Fosque Unit, 1,320 ft. N and E, SW cor. Sec. 28-23-16.
Rigging up.
United Gas Pub. Ser. Co.'s No. 1 Johnson Unit, 1,245 ft. S, 1,365 ft. W, NE cor. Sec. 26-23-16.
Location.

SABINE PARISH—ZWOLLE

Alexander & Crane's No. 1 Fogman, SE cor. N½ SW NE Sec. 18-7-11.
Set 6-in. 2,373 ft.
Ivan A. Allen's No. 1 La. Long Leaf, 330 ft. N and W, SE cor. NW SE Sec. 12-7-11.
S.D. 2,120 ft.
E. D. Holcomb's No. 1 Porter, 330 ft. S, 330 ft. W, NE cor. SE Sec. 7-7-11.
Pulling liner 2,580 ft.
H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
Rigging up.
H. C. Maulding's No. 2 DeLatin, 330 ft. S and E, NW cor. NE SE Sec. 3-7-11.
S.D. 2,250 ft.
K. C. Peterson et al's No. 1 Bowman-Hicks, 330 ft. S and E, NW cor. SW NW Sec. 2-7-9.
Derrick down.
Tex.-La.-Ark. Oil Co.'s No. 1 Pickering Lbr. Co., Sec. 3-3-12.
S.D. 2,742 ft.

EAST TEXAS (BORDER COUNTIES)

HARRISON COUNTY

R. C. Payne et al's No. 1 Lowery, E. D Spain Sur.
P.B. to 3,524 ft.

MARION COUNTY

Ed S. Holman's No. 1 Henderson, R. Bennington Sur.
Drlg. 2,250 ft.

PANOLA COUNTY

R. H. Davis' No. 1 Wooten Est., Winnie Mann Sur.
Cmtd. back and testing.
Givens & Holloway's No. 1 Wooten est., Winnie Mann Sur.
T.A. 2,153 ft.
R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Set 10-in. 64 ft.
Fred Stovall Drlg. Co.'s No. 1 H. D. Ivey, P. Martin H.R.B.
S.D. for csg. 1,930 ft.
Thomason Drlg. Co.'s No. 1 Cadenhead, Jas. Smith Sur.
Rigging up.

SHELBY COUNTY

Cliff Stovall's No. 1 Pickering Lbr. Co., C H. Patterson Sur.
S.D.; rig repair, 1,485 ft.
O. P. Bush, trustee's No. 1 Pickering Lbr. Co., P. W. Harvey Sur.
S.D. 730 ft.

ALABAMA

CONECUH COUNTY

Ray L. Eastabrook's No. 1 Miller Mill Co., W½ NE Sec. 1-4n-12e.
Set 9⅝-in. 1,012 ft.; drlg. 1,085 ft.

COVINGTON COUNTY

Geometer Prod. Corp.'s No. 1 Culbreath, SW cor. SW NE Sec. 3-2n-14e.
Drlg. 1,100 ft.

HOUSTON COUNTY

Rice O. & G. Co.'s No. 1 Oakley est., SE cor. NW SW Sec. 9-3n-29e.
S.D.; W.O. 2,506 ft.

LAMAR COUNTY

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 22-15s-16w.
S.D. 4,182 ft

WALTON COUNTY—FLORIDA

Geometer Oil Corp.'s No. 2 Walton Land & Timber Co., Sec. 10-1s-19w.
Rigging up.

Gulf Coast Wildcats

(Continued from Page 59)

Texas Co.'s No. 17 Houston Oil Fields Assn., 244 ft. S, 244 ft. W, from NE cor. of Lot 1, A.C.H.&B. Sur. No. 91.
Location.
Texas Co.'s No. 16 Houston Oil Fields Assn., 247 ft. S, 440 ft. E from NW cor. of Lot 19, A.C.H.&B. Sur., No. 91.
Location.
Texas Co.'s No. 1 J. L. Lemmer, 330 ft. S 48 deg. E and 330 ft. N, 42 deg. E of W cor. of lease, Thomas Sproggins Sur., Abst. A-366.
Drlg. shale and lime 3,474 ft.
Texas Co.'s No. 2 Dawson, 247 ft. S, 241 ft. W of NE cor. of Lot 55, H.T.&B. Sur. No. 23.
Location.
Texas Co.'s No. 1 L. C. Dawson, 247 ft. S, 441 ft. W of NE cor. of Lot 49, H.T.&B. Sur. No. 23.
Location.
Texas Co.'s No. 2 Dawson, 247 ft. S, 441 ft. W of NE cor. Lot 48, H.T.&B. Sur. No. 23.
Location.
Trumba Oil Co.'s (J. M. Campbell) No. 1 H. McCauley, 150 ft. each way out of NE cor. of W 5 acres of Lot No. 2, A.C. H.&B. Sur. No. 91.
Location.

STRATTON RIDGE—BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 6 Seider & State, 225 ft. due N of No. 3.
Rigging up.

WEST COLUMBIA—BRAZORIA COUNTY

Sterling O. & R. Co.'s No. 4 Hogg, 200 ft. S of No. 1, 50 ft. from W line of lease, Martin Verner Sur.
T.D. 5,298 ft.; cmt. back to 4,850 ft.; drilled out cmt. to 5,190 ft.; S.D.
Texas Co.'s No. 84 Hogg, 2,483 ft. N, 50 ft. W from SE cor. of lease, M. Varner Sur.
Temporarily S.D. 5,242 ft.

BARBERS HILL—CHAMBERS COUNTY

Moody Corp.'s No. 1-C E. W. Barber, 301 ft. from N line and 312 ft. from E line of "B" lease, H. Griffith Sur.
Drlg. shale 3,749 ft.; sidetracking.
Humble O. & R. Co.'s No. 8-B Kirby, 200 ft. N of No. 2, 100 ft. W of E line, Henry Griffith League.
Drlg. salt 1,943 ft.
Sterling O. & R. Co.'s No. 1 Gamble, 300 ft. from E line, 294 ft. from N line of Lot 78, E. Little Sur.
Bldg. derrick.
Sun Oil Co.'s No. 15 Wilburn, 465 ft. from E and 50 ft. from W line of lease, Wm. Hodges Sur.
Running tubing 5,213 ft.
Sun Oil Co.'s No. 17 Wilburn fee, 188 ft. E of W line and 40 ft. S of N line and 130 ft. W of No. 16.
T.D. 1,078 ft.; sidetracking at 758 ft.
Texas Gulf Prod. Co.'s No. 12-A Kirby, 613 ft. N of S line, 85 ft. W of E line, W of Humble O. & R. Co.'s No. 8-B Kirby.
Rigging up.
Texas Gulf Prod. Co.'s No. 3 T. S. Fitzgerald, 340 ft. S of N line and 40 ft. E of W line of lease.
Drlg. salt 3,124 ft.
Texas Gulf Prod. Co.'s No. 2 Morgan Fitzgerald, 400 ft. N of S line, C of Strip No. 3.
Drlg. sand and shale 4,270 ft.
Texas Co.'s No. 10 Wilburn, 475.5 ft. N, 29 deg., 10 ft. W from SW cor. of lease.
Drlg. oil sand 4,335 ft.
Yount Lee Oil Co.'s No. 8 Woodward.
Swabbing oil and S.W. 5,374 ft.
Yount Lee Oil Co.'s No. 27 Chambers Co., 400 ft. W of No. 24 and in line with Nos. 24 and 21.
Drlg. sand and shale 4,194 ft.
Yount Lee Oil Co.'s No. 23 Chambers County, 50 ft. N of S line, direct offset to Sun's No. 10 Chambers County, Wm. Bloodgood Sur.
Derrick.

BOLING—FORT BEND COUNTY

Allied Minerals, Inc.'s No. 1 J. H. Blackwell, 1,400 ft. from E line, 100 ft. from S line of 50-ac. of J. H. Blackwell 100 ac.

John Huff Sur.
Drlg. pyrites 5,005 ft.
Midland Oil Co.'s No. 1 P. F. Coulter, 150 ft. from S line, 4,174 ft. from W line of 160-ac. tract, Miller League No. 2.
Set screen; T.D. 4,186 ft.
Allied Minerals, Inc.'s No. 1 E. C. Farmer, James Scott League, 750 ft. SE of NW line and 150 ft. SW of NE line of Gulf Prod. Co.'s E. C. Farmer 50-ac. tract.
Replugging the hole.
Irwin Larsen et al's No. 1 J. R. Farmer, 100 ft. NW and 100 ft. SW from E cor. of 125-ac. lease, James Scott Sur.
Location.
Trans-State Oil Co.'s No. 1 Dipple, E flank of dome.
10-in. csg. at 592 ft.

THOMPSON COUNTY

Humble O. & R. Co.'s No. 29-B Lockwood & Sharpe, 2,292 ft. W of E line, 376 ft. S of N line, 590 ft. E of No. 25.
Drlg. shale 5,275 ft.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 41 Moore, 3,372 ft. S along W line from NW cor. of James Frazier Sur., and 2,154 ft. at R/A.
Drlg. shale and lime 2,122 ft.
Gulf Prod. Co.'s No. 42 Moore, 345 ft. S, 305 ft. W of SW cor. of E.M.G. Co. Sur.
Rig up.
Gulf Prod. Co.'s No. 43 Moore, 350 ft. E along S line of SW cor. of E.M.&G. Co. Sur. and 740 ft. N at R/A to said line of lease, 350 ft. E of No. 3 Moore.
Location.

SUGARLAND—FORT BEND COUNTY

Humble O. & R. Co.'s No. 12 Nelson.
Drlg. cap rock 3,690 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 1-A Gordon-Viterbo, 122 ft. E of W line, 326 ft. S of N line of Lot 1, Martin Dunman Sur.
Location.
Yount Lee Oil Co.'s No. 1 Loustalbot, 300 ft. from N line, 121 ft. from E line of Lot No. 2, offset to No. 2 Stewart, Martin Dunman Sur.
Location.
Yount Lee Oil Co.'s No. 1 F. C. Pabst, 1,186 ft. S of N line and 1,186 ft. E of W line of Lot 32, Martin Dunman Sur.
Location.
Yount Lee Oil Co.'s No. 42 Cade, N. Fitzsimmons Sur., half way between Nos. 26 and 28 and 150 ft. E at R/A.
Drlg. sand and shale 5,602 ft.
Yount Lee Oil Co.'s No. 44 Cade.
Drlg. shale and lime 4,614 ft.
Yount Lee Oil Co.'s No. 23 Smith.
T.D. 4,614 ft.; I.P. 150 bbls.
Yount Lee Oil Co.'s No. 2 Stewart.
Drlg. sand and shale 4,881 ft.

DICKINSON—GALVESTON COUNTY

Humble O. & R. Co.'s No. 2 Maco Stewart, 3,324 ft. S along E line of S bank of Bayou and 586 ft. W of E line at R/A, John Sellers Sur.
Derrick.
Humble O. & R. Co.'s No. 1 Schoper, C S½ of Blk. 15, or on line between Lots 3 and 4 and center N and S. W. K. Wilson Sur.
Drlg. shale 5,562 ft.
Humble O. & R. Co.'s No. 1 H. O. and W. G. Jones, 750 ft. N of N bank of Bayou and center T and W, J. O. Sherman Sur.
Drlg. shale 3,108 ft.
Humble O. & R. Co.'s No. 1 A. F. Danielson, center of 10-ac. tract, being Lots 6 and 7 of Righter Subd., John Sellers Sur.
Drlg. shale 7,763 ft.

ARRIOLA—HARDIN COUNTY

Houston Oil Co.'s No. 3-X fee, 2,150 ft. S of N line of lease and 150 ft. E of W line of Unit X.
T.D. 4,746 ft.; P.B. to 3,179 ft.; W.O.C.

BATSON—HARDIN COUNTY

John Deering's No. 1 Cruse.
Drlg. shale and sand 4,610 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 11-R Jordit, 300 ft. due S from No. 9-R Jordit.
Prepare to set screen; sand 1,280-1,323 ft.; T.D. 1,326 ft.; csg. collapsed at 1,235 ft.; trying to set whipstock.

SOUR LAKE—HARDIN COUNTY

Arlis Pet. Co.'s No. 1 Harkan and Langham, Dig pits.
Alpha Pet. Co.'s No. 2-A Wm. Weiss, 100 ft. W of No. 2.
Set screen 6,696-6,808 ft.; washed in; flowing wash water and oil.
Sun Oil Co.'s No. 2 Bernard Corp., 150 ft. from N and W lines of Lot 11, H.T.&B. Sur., Sec. 69.
T.D. 7,814 ft.
Texas Co.'s No. 317 fee, 165 ft. S of No. 262, 320 ft. E of No. 274.
Rig up.

GOOSE CREEK—HARRIS COUNTY

Humble O. & R. Co.'s No. 80 Simms-Smith, Scott Lower League, 1,000 ft. E of the most westerly W line, and 300 ft. N of the most northerly S line.
Milling shale 6,254 ft.; T.D. 6,355 ft.

PIERCE JUNCTION—HARRIS COUNTY

Gulf Prod. Co.'s No. 38 Taylor.
Derrick.
Gulf Prod. Co.'s No. 21 Taylor.
Swbng. 4,616 ft.
Rio Bravo Oil Co.'s No. 27-A Settegast, 377 ft. S, 553 ft. W of NE cor. of Settegast "A" tract, James Hamilton Sur.
Standing 5,526 ft.
Rio Bravo Oil Corp.'s No. 9-A Settegast, 1,575 ft. N line, 250 ft. E line NE cor. "A" lease, J. A. Kopman Sur.
T.D. 5,411 ft.; standing.

MYKAWA—HARRIS COUNTY

Danciger O. & R. Co.'s No. 2 Minnetex, 150 ft. from S line and 87.5 ft. from E line of Blk. 192, Wm. Lovett Sur.
Derrick.
Danciger O. & R. Co.'s No. 1 Williams, SW cor. of 29-ac. lease.
7-in. csg. 4,819 ft. T. D. 4,967 ft.
Waiting on cement.
West Prod. Co.'s No. 1 Medelsohm & Ryeman, Block 13, F. J. Rathes Survey.
Drlg. shale 4,010 ft.

TOMBALL—HARRIS COUNTY

Amerada-Stanolind's No. 1 Doyle, 210 ft. from most southerly S line to C of W and E line of 24-ac. lease and approx. 4,950 ft. from W line and 675 ft. from S line of Joseph House Sur.
T.D. 5,532 ft.; I.P. 342 bbls. in 15 hrs.; ¼-in. choke.
Humble O. & R. Co.'s No. 9-B Quilter.
Drlg. shale 2,980 ft.
Humble O. & R. Co.'s No. 1 Hilligeist, 466 ft. N of S line, 502 ft. W of E line.
T.D. 5,592 ft.; set csg. 5,554 ft.; W.O.C.
Humble Oil & Ref. Co.'s No. 3-A Schultz, 435 ft. E of WL, 700 ft. N of SL, C Goodrich Survey.
7-in. csg. 5,567 ft.; drlg. 5,572 ft.
Humble O. & R. Co.'s No. 1 Melo, 535 ft. S of N line, 584 ft. E of W line of 346 acres, C. N. Pillot Sur.
7-in. csg. 5,541 ft.; pulling screen and liner to D.D. after testing gas; T.D. 5,550 ft.
Humble O. & R. Co.'s No. 7 Reid, 623 ft. from W line, 1,350 ft. from S line, C. Goodrich Sur.
W.O.C. 5,505 ft.
Texas Co.'s No. 3 R. W. Hirsch, 510 ft. W of E line and 466 ft. N of S line of lease.
Drlg. sand and lime 3,250 ft.

KITTRELL—HOUSTON AND WALKER COUNTIES

Humble O. & R. Co.'s No. 6 E. T. Shaw, 330 ft. from NW line, 990 ft. from SW line of lease, Charles McElliis Sur.
Location.
Humble O. & R. Co.'s No. 7 Shaw, 660 ft. NW of No. 5 and 330 ft. from SW line of lease, Charles McElliis Sur.
Drlg. shale 320 ft.
Kellough & Tucker No. 1 L. W. Huffman, 10 ft. SW, 10 ft. NW of most southerly corner of Humble Oil & Ref. Co.'s lease, Charles McElliis Survey.
Drlg. shale 710 ft.
Sunoil Co.'s No. 1 Huffman Charles McCoring shale 2,028 ft.

VANDERBILT—JACKSON COUNTY

Imperator Oil Co.'s No. 1 Dutton, S C of Lot No. 11, Blk. 25, 450 ft. S of R.R. and 1,350 ft. W line of townsite, Ray Musquiz Sur.
Rigged up and S.D.
Turman Oil Co.'s No. 1 T. H. Miller, 150 ft. each way out of E 50 ac. of Miller 100-ac. tract in Ray Musquiz Sur.
Rigging up.

BIG HILL—JEFFERSON COUNTY

Yount Lee Oil Co.'s No. 1-A Pipkin, 2,640 ft. S and 2,050 ft. W of NE cor. of survey T.D. 6,319 ft.; in sand showing lots of gas; trying to get bottom of hole.

FANNETT—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 16 Thomas, 650 ft. N of S line, 165 ft. W of E line of W. H. Smith League.
Location.

CLEVELAND—LIBERTY COUNTY

Blackgold Pet. Co.'s No. 1 R. D. McDonald, 20 ft. due W of Gulf Prod. Co.'s 6-C Kirby, T. Devers Sur.
T.D. 5,339 ft.; flowed 264 bbls. in 24 hrs. through ¾-in. choke; tubing pressure 1,450 lbs.; csg. pressure 1,700 lbs.
Black Gold Pet. Oil Corp.'s No. 2 R. D. McDonald, 466 ft. W of most westerly E line and 466 ft. N of most northerly S line of survey, 933 ft. W of Gulf Prod. Co.'s No. 7-C Kirby Lbr. Co., T. Devers Sur.
Location.
William J. Colegrove et al's No. 1 State School Land & Dev. Co., 446 ft. from W line and 170 ft. from S line of survey, Clayton Rooper Sur.
Location.
Gulf Prod. Co.'s No. 8-C Kirby, 933 ft. due E of No. 1 Kirby.
Drlg. shale 5,617 ft.

ESPERSON—LIBERTY COUNTY

General Crude Oil Co.'s No. 15 Moores Bluff, midway between No. 10 and No. 12 Moores Bluff.
Drlg. sand 4,088 ft.
General Crude Oil Co.'s No. 1 W. D. Kay, Malcolm Duncan Sur., 1,537 ft. along N
Drlg. shale 6,013 ft.
General Crude Oil Co.'s No. 10 Davis, 2,000 ft. from E line, 660 ft. from S line of D. Kokernut Sur.
Rig up.

HANKAMER—LIBERTY COUNTY

Gulf Prod. Co.'s No. 4 Crow & Jacobs, 150 ft. E, 420 ft. N of SW corner of lease, Section 21, H & T C Survey.
Drlg. gumbo and lime 3,732 ft.
Gulf Prod. Co.'s No. 1 Hankomer, 250 ft. W, 420 ft. N of SE corner of George Stingler Survey.
Location.

HULL—LIBERTY COUNTY

Gulf Prod. Co.'s No. 12 W. L. Thomas, 1,650 ft. N and 150 ft. E of SE cor. of 300-ac. tract, Jessie Devore Sur.
Abd. 6,374 ft.
G. R. Brown and S. F. Bashara's No. 1 David Hannah, Jesse Devore league, 300 ft. S line, 150 ft. E line, 42-ac. Gulf tract.
Derrick.
Sterling O. & R. Co.'s No. 1 Taylor, 180 ft S of S line of tract, and 5,500 ft. E of E line of 5-ac. tract, J. Devore Sur.
T.D. 4,812 ft.; tested S.W.; to P.B. and test sand at 3,200 ft.
Texas Co.'s No. 3 Barrow.
T.D. 4,355 ft.; P.B. 4,194 ft.; swabbing.

BUCKEYE—MATAGORDA COUNTY

United North & South Dev. Co.'s No. 1 Unit 4, Buckeye farm, J. C. Keller league, 314 ft. N line and 203 ft. E line of lease. Shut down.

CONROE—MONTGOMERY COUNTY

Humble O. & R. Co.'s No. 73 South Tex Dev. Co., 6,000 ft. E of most easterly W line, 466 ft. S of N line of Theo Slade Sur.
Swabbing 5,065 ft.
Houston Oil Co.'s No. 11 Cartwright, N offset to No. 10 Cartwright.
T.D. 5,189 ft.; I.P. 16 bbls. per hr.; ¾-in. choke.
Sun Oil Co.'s No. 23 Foster, 799.5 ft. S of No. 12, 892 ft. W of No. 12, J. Brecker Sur.
Drlg. shale 658 ft.

SPLENDORA—MONTGOMERY COUNTY

Bryce McCandless et al's No. 1 Texas Long Leaf Lbr. Co., 330 ft. from N and E lines of the W¼ of Blk. No. 8, Walker County School Land Sur.
Derrick.

ORANGE—ORANGE COUNTY

Trio Oil Co.'s No. 1 D. S. Comier, 69 ft. W of E line and 39 ft. S of N line of 6.83-ac. tract in W. M. Dyson Sur.
Drlg. gumbo and lime 2,324 ft.

TOM O'CONNOR—REFUGIO COUNTY

Quintana Oil Co.'s No. 2-B O'Connor, 500 ft. from W line, 260 ft. from S line of M. L. White Sur.
Coring 7,235 ft.
Quintana Oil Co.'s No. 5 O'Connor, 2,125 ft. from S line, 466 ft. from E line of Blk. 4, Swisher Sur.
Coring 5,909 ft.
Quintana Oil Co.'s No. 6-A O'Connor, J. M. Swisher Sur., Blk. 4.
Derrick.

FORT NECHES—ORANGE COUNTY

Fort Neches Pet. Corp. et al's No. 1 W. B. Organ, 450 ft. from NE line and 150 ft. from NW line of A. Schramm Sur., S of Fort Neches Field.
Drlg. wtr. sand 5,950 ft.
Texas Co.'s No. 3-B Polk, 200 ft. S, 450 ft. W of SE cor. of Mary E. Hall Sur. No. 3
T.D. 5,933 ft.; washed well in; came in leak around 9⅝-in. csg.; running 7-in. to top of liner at 5,790 ft.
Texas Co.'s No. 10 Kuhn, 200 ft. N, 450 ft. W of SE cor. of Mary E. Hall Sur. No. 3.
T.D. 5,970 ft.; cmtd. back 5,945-5,845 ft.; set screen; preparing to complete.
Texas Co.'s No. 3 Orange National Bank, 750 ft. S of N line and 295 ft. E of W line of lease, Jacob Beaumont Sur.
Derrick.
Texas Co.'s No. 4-B Polk, 750 ft. S and 1,450 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.
Texas Co.'s No. 5-B Polk, 750 ft. S and 850 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.
Texas Co.'s No. 6-B Polk, 750 ft. S and 250 ft. W from NE cor. of lease, Jacob Beaumont Sur.
Location.

LIVINGSTON—POLK COUNTY

Gem Oil Co.'s No. 6 Davis & Holmes, 683 ft. from W and 662 ft. from N line of survey, A. Viesca Sur.
Rig up.
Ownby Drlg. Co.'s No. 1 H. J. Pratt, 300 ft. N and E of H. J. Pratt's 2,303-ac. tract, A. Viesca Sur.
T.D. 4,250 ft.; flowed 23 bbls. in 24 hrs. through ½-in. choke; tubing pressure 1,250 lbs.; csg. pressure 1,200 lbs.

GRETA—REFUGIO COUNTY

Atlantic and Stanolind's No. 7-G O'Brien.
Derrick.
Hewitt & Daugherty's No. 12 Lambert.
Rig up.
Humble O. & R. Co.'s No. 18 Heard, 466 ft. from N line, 1,399 ft. from W line of 500-ac. tract, J. H. Peoples Sur.
Drlg. shale 4,037 ft.

REFUGIO—REFUGIO COUNTY

Houston Oil Co.'s No. 18 W. J. Heard, S offset to United Prod. Co.'s well on N side of river.
T.D. 2,660 ft.; comp. as gas well; 1,000 lbs. working pressure; 5/16-in. choke.
United Gas Co.'s No. 4 Fannie Heard old well.
T.D. 3,661 ft.; P.B. 3,444 ft.; perforated csg.
United Gas Co.'s No. 3 Tom Heard old well.
Made 20 bbls. of oil per day; tubing pressure 15 lbs.; csg. pressure 400 lbs.
United Gas Co.'s No. 10 Wilson Heard, runs 2,062 ft. along NE line Wilson Heard lease from S cor. of Houston Oil Co.'s F. V. W. Heard lease, 4,579 ft. to a point, thence at R/A to line 330 ft. to point of location.
Derrick.
United Gas Co.'s No. 5 Powers.
T.D. 5,326 ft.; preparing to complete.

COLETO CREEK—VICTORIA COUNTY

Rupert Cox's No. 1 Antone Trybil, R. Manchola Sur.
Derrick.
Plummer Oil Co.'s No. 3 Zimmer, 660 ft. NE of No. 2.
Cmtd. csg. 2,815 ft.

McFADDIN-O'CONNOR DISTRICTS—VICTORIA AND REFUGIO COUNTIES

Texas Co.'s No. 9 McFaddin.
Location.

CLAY CREEK—WASHINGTON COUNTY

Sun Oil Co.'s No. 10 H. R. Clay.
Coring shale 1,556 ft.

LOUISE—WHARTON COUNTY

Pure Oil Co.'s No. 3 Charles T. Kountze, 1,980 ft. SE and 330 ft. SW of N cor. of Morris & Cumming Sur., Sec. 9.
Sidetracked 4,972 ft.
Pure Oil Co.'s No. 1 John Macha, 318 ft. from NW line and from SE line of F. Walnut Sur., and 467 ft. from NE line of 101.52-ac. lease, M.&C. Sur. No. 25.
Location.
Pure Oil Co.'s No. 1 G. Wharton Est., 1,497 ft. from SW line and 316 ft. from SE line of F. Walnut Sur., Abst. A-35.
T.D. 6,510 ft.; sidetracked 4,998 ft.
Pure Oil Co.'s No. 2 Stewart, Morris & Cummings Sur., Sec. 25, 990 ft. out of SW cor. of 160 acres.
P.B. from 6,500 ft. to 6,350 ft.
Pure Oil Co.'s No. 3 Stewart, 1,000 ft. SW and 318.25 ft. SE from N cor. of W. L. Stewart's 160-ac. tract, Morris and Cummings Sur. No. 25.
Location.
Pure Oil Co.'s No. 4 Stewart, 485 ft. SW, 330 ft. NW of E cor. of W. L. Stewart's 160-ac. tract, Morris and Cummings Sur. No. 25.
Location.

BAY ST. ELANE—TERREBONNE PARISH

Texas Co.'s No. 9 Bay St. Elane.
Drlg. shale 6,444 ft.

CALLIOU ISLAND—TERREBONNE PARISH

Texas Co.'s No. 17 Calliou Island, Sec. 30-23-23.
Rig up.
Texas Co.'s No. 18 Calliou Island.
Drlg. shale 1,255 ft.

SOUTH LOUISIANA FIELDS

BLACK BAYOU—CAMERON PARISH

Shell Pet. Corp.'s No. 2 State.
Coring shale 4,239 ft.
Shell Pet. Corp.'s No. 11-C Watkins, 1,200 ft. S of NW cor., Sec. 17-12s-12w.
Coring limestone 1,481 ft.
Shell Pet. Corp.'s No. 3 State.
T.D. 6,499 ft.; waiting on cmt. to set.

BOSCO—ACADIA AND ST. LANDRY PARISHES

Standard Oil Co. of Kansas' No. 1 Mouton, 1,480 ft. E, 250 ft. S of NW cor. of SW¼ Sec. 34-8s-3e.
Fishing 7,016 ft.
Superior Oil Prod. Co.'s No. 4 Comeaux, 1,420 ft. S, 2 deg. W, 350 ft. S, 89 deg. E out of NW cor. NE¼ Sec. 34.
Rig up.
Superior Oil Prod. Co.'s No. 2 Johnson, 1,128 ft. N, 673 ft. E from SW cor. of NE¼ Sec. 34.
Derrick.
Superior Oil Prod. Co.'s No. 1 Coralie Domingua, 3,998 ft. S, 767 ft. W of NE cor. Sec. 34-8s-3e.
Drlg. sand and shale 6,721 ft.
Superior Oil Prod. Co.'s No. 4 Hermandez, 450 ft. E and 330 ft. S of NW cor. of lease, Sec. 34-8s-3e.
Drlg. sand and shale 8,121 ft.
Superior Oil Prod. Co.'s No. 7 Larcade, 2,467 ft. E, 190 ft. N of SW cor. N½ NW Sec. 35-8s-3e.
Drlg. sand and shale 3,561 ft.
Superior Oil Prod. Co.'s No. 3 Comeaux, 1,324 ft. E of NW cor. NE Sec. 34.
Abd. 8,070 ft.
Superior Oil Prod. Co.'s No. 5 Larcade, 1,665 ft. S and 483 ft. E of NW cor. Sec. 35-8s-3e.
T.D. 7,846 ft.; I.P. 6,088 bbls. per day; 14/64-in. choke; tubing pressure 1,250 lbs.
Superior Oil Prod. Co.'s No. 1 Moise LaVergne, 269.7 ft. W and 98 ft. N of SE cor. of Sec. 28-8s-3e.
T.D. 7,894 ft.; P.B. and sidetracked at 5,850 ft.; drlg. 5,912 ft.
Superior Oil Prod. Co.'s No. 1 A. Allemond, 350 ft. S, 20 deg. S, 53 min. W, and 530 ft. N, 88 deg., 53 min. W of NE cor. of 37.13-ac. tract, Sec. 33-8s-3e.
Drlg. sandy shale 3,637 ft.
Superior Oil Prod. Co.'s No. 2 M. Kahn, from SE cor. 2,563 N, 20 deg., 53 min. E, and 1,000 ft. N, 89 deg., 23 min. W of Sec. 33-8s-3e.
Set 7-in. csg. at 8,720-33 ft.
Superior Oil Prod. Co.'s No. 1 C. B. Hermandez, 2,791.6 ft. S, 330 ft. W of NE cor. of NW¼ Sec. 34-8s-3e.
Drlg. sand and shale 5,695 ft.

EDGERLY—CALCASIEU PARISH

Emerson Oil Co.'s No. 1 Bright-Penn.
W.O.; drlg. shale 3,536 ft.
Union Sulphur Oil Co.'s No. 3 Hunter, 1,160 ft. N and 220 ft. E of SW cor. SE Sec. 21-9s-11w.
Drlg. cmt. 2,819 ft.

CAMERON MEADOWS—CAMERON PAR.

Burton-Sutton's No. 1 School Land.
Drlg. rock 4,876 ft.
Burton-Sutton Oil Co.'s No. 4 School Land, 2,891 ft. W and 150 ft. N of SE cor. of Sec. 16-4s13w.
Derrick.
Magnolia Pet. Co.'s No. 10 Cameron Meadows, 500 ft. S of No. 9.
Rig up.
Texas Co.'s No. 1 Miami Corp.
Drlg. sand 3,626 ft.

CHOCTAW DOME—IBERVILLE PARISH

Standard Oil Co.'s No. 5 Gay, 2,450 ft. S and 425 ft. E of NW cor. of NE Sec. 32-9s-11e.
Cmtd. surface csg. 650 ft.

DOG LAKE—TERREBONNE PARISH

Texas Co.'s No. 11 State, 150 ft. N and 2,474 ft. W, SE cor. Sec. 31-21s-16e.
Derrick.

GARDEN ISLAND BAY—TERREBONNE PARISH

Texas Co.'s No. 13 State, 3,391 ft. S and 1,504 ft. W of NE cor. Sec. 107-23-32.
Rig up.
Texas Co.'s No. 14 State, 667 ft. N and 992 ft. E of SW cor. Sec. 37-23-25.
Pulling csg.; T.D. 2,324 ft.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 6, Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
Sidetracked 6,476 ft.; T.D. 9,279 ft.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 4 Hansen, 1,650 ft. W and 780 ft. N of SE cor. Sec. 11-12s-10w.
Drlg. shale 5,048 ft.
Calcasieu Oil Co.'s No. 3 H. C. Hansen, 150 ft. S and 150 ft. E of NW cor. of lease. Sec. 13-12s-10w.
T.D. 5,870 ft.; sidetracked 4,915 ft.
Gulf Prod. Co.'s No. 14-B State, 610 ft. S, 1,866 ft. E of NE cor. Sec. 13-12s-10w.
Location.
Sutton Oil Co.'s No. 1 Miller, 229 ft. N and 100 ft. E of SW Sec. 23-12s-10w.
Abd. 4,716 ft.
Texas Co.'s No. 14 State, 500 ft. SE of No. 13, Sec. 13-12s-10w.
Location.
Union Sulphur Co.'s No. 3 Hansen.
Drlg. rock 4,848 ft.
Union Sulphur Co.'s No. 4 Hansen.
Drlg. sandy shale 5,948 ft.
Yount Lee Oil Co.'s No. 1-A Gulf Land, 2,000 ft. S and 50 ft. E of the NW cor of Sec. 22-12-10.
Rig up.
Yount Lee Oil Co.'s No. 12 Gulf Land, 1,625

ft. S and 350 ft. W of NE cor. of NW of Sec. 14-12s-10w.
Drlg. sand 5,103 ft.
Yount Lee Oil Co.'s No. 15 School land, 1,160 ft. S, 715 ft. W of NE¼ of SW cor. Sec. 16-12s-16w.
Drlg. shale 4,539 ft.

NEW IBERIA—IBERIA PARISH

Harrison & Abercrombie's No. 3 Schwing, 500 ft. N and 50 ft. E of No. 2, Sec. 24-12s-5w.
Drlg. sand 4,515 ft.
Texas Co.'s No. 1 Hanzen, NE along NW line of lease 508 ft., thence 150 ft. E at R/A, Sec. 54-12s-7e.
Drlg. shale 6,032 ft.

IOWA—CALCASIEU AND JEFF DAVIS

Magnolia Pet. Co.'s No. 11 Walt, 330 ft. E. 330 ft. N of SW cor. NE SE Sec. 12.
T.D. 6,908 ft.; I.P. 1,135 bbls. in 24 hrs.; no gauge on pressure.
Shell Pet. Corp.'s No. 1 Johnston.
Drlg. sandy shale 2,107 ft.
Shell Pet. Corp.'s No. 13 Hyde, 990 ft. S. 330 ft. E of NW cor. NE Sec. 13-9s-7w.
Coring sand 5,422 ft.
Shell Pet. Corp.'s No. 6 Stafford, 1,650 ft. from S line, 330 ft. W of NE cor. of lease, Sec. 18-9s-6w.
Drlg. sand and shell 2,928 ft.
Shell Pet. Corp.'s No. 14 Heyd, 330 ft. N, 1,319 ft. W of SE cor. of NE¼ Sec. 13. Cmtd. surface csg.; T.D. 1,312 ft.

JENNINGS—ACADIA PARISH

Simon-Tolson and Gardner's No. 1, 1,020 ft. due E and 250 ft. due W of SE cor. Sec. 46-9s-2w.
Fishing 1,870 ft.
Yount Lee Oil Co.'s No. 14 Housierre-Latrielle, 240 ft. N of No. 13, Sec. 47-9s-3w.
Drlg. shale 7,759 ft.
Yount Lee Oil Co.'s No. 10 Housierre-Latrielle, 5,435 ft. due E, 1,070 ft. due N of SW cor. of section.
Drlg. shale and lime 8,698 ft.

LAKE BARRE—TERREBONNE PARISH

Texas Co.'s No. 31 Lake Barre.
Drlg. anhydrite 2,195 ft.

LAKE PELTO—TERREBONNE PARISH

Texas Co.'s No. 12 Lake Pelto.
Drlg. shale 5,698 ft.
Whitstone O. & G. Co.'s No. 1 Buckley, 300 ft. S and E of NW cor. SW SW Sec. 35-19s-16e.
T.D. 3,390 ft.; P.B. to 3,053 ft.; washing to bottom.

LAKE WASHINGTON—PLAQUEMINES PARISH

Humble O. & R. Co.'s No. 23 Cockrell-Moran, 650 ft. N and 21 deg. 30 min. E of No. 2 in Twp. 20s-26e.
Drlg. sand 4,492 ft.

LEESVILLE—LAFOURCHE PARISH

Gulf Prod. Co.'s No. 3 Bernard.
Fishing 3,881 ft.
Gulf Prod. Co.'s No. 5 Bernard.
R.U. to W.O.
Gulf Prod. Co.'s No. 10 Bernard, 1,833 ft. E, 958 ft. S of NW cor. Sec. 26-21s-22e.
Derrick.
Emerald Pet. Co.'s No. 10 State, west bank, 300 ft. S of well No. 1.
Location.
Emerald Pet. Co.'s No. 11 State, east bank, 227 ft. N of well No. 1.
Location.
Emerald Pet. Co.'s No. 12 State, east bank, 250 ft. S of well No. 1.
Location.
Leesville Oil & Gas Co.'s No. 1 Southern Louisiana Canal Navigation Co., 25 ft. W of Bank of Bayou, 15 ft. N of S bank, Sec. 26-21s-22e.
S.D. 4,420 ft.
Lincoln Oil Co.'s No. 5 State.
Location.
Texas Co.'s No. 31 Leesville.
Drlg. shale 2,383 ft.
Texas Co.'s No. 23 Leesville.
Rig up.
Texas Co.'s No. 27 Leesville.
Canal completed.
Texas Co.'s No. 30 Leesville, 1,075 ft. S, 310 ft. E, NW cor. Lot 6, Sec. 26-21s-23w.
Drlg. gravel 542 ft.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 12 Bordages, 966 ft. W and 93 ft. N of SE cor. N½ NE Sec. 8-10s-19w.
D.S. stuck 7,725 ft.
Union Sulphur Co.'s No. 1 Moss (W.O.).
T.D. 6,607 ft.; cmtd. 4½-in. csg.

PORT BARRE—ST. LANDRY PARISH

Gulf Ref. Co.'s No. 10 Wilson Cochran, 1,200 ft. S of most southerly NE cor. of Texas Co.'s Botany Bay lease, 600 ft. E at R/A to line lease, Sec. 4-6s-5e.
Drlg. shale 3,260 ft.

ROANOKE—JEFFERSON DAVIS PARISH

Humble O. & R. Co.'s No. 2 Kratzer, 440 ft. from W line, 440 ft. from S line of 120-ac. tract, Sec. 11-4w-9s.
Drlg. sand 3,011 ft.
Humble O. & R. Co.'s No. 1 Clayton, 2,080 ft. S and 440 ft. W, NE cor. Sec. 10-9s-4w.
Rig up.
Humble O. & R. Co.'s No. 1 R. C. Jarnegan, 440 ft. S, 440 ft. E of the NW cor. SE Sec. 12-9s-4w.
Drlg. 9,578 ft.
Humble O. & R. Co.'s No. 3 Devilbiss, 1,399 ft. W, 466 ft. S of NE cor. Sec. 14-9s-4w.
T.D. 9,425 ft.; P.B. 9,230 ft.; swabbing.
Shell Pet. Corp.'s No. 1 Jarnigan, 330 ft. E, 660 ft. S. NW cor. Sec. 13-9s-4w.
Coring sandy shale 9,950 ft.
Shell Pet. Corp.'s No. 1 Carter, 660 ft. N and 330 ft. W of SE cor. NW Sec. 1-9s-4w.
Coring shale, 7,328 ft.
Shell Pet. Corp.'s No. 2 Kratzer, 440 ft. N and 440 ft. E of SW cor. NW Sec. 13-9s-4w.
Prepare to make D.S. test.

STARKS—CALCASIEU PARISH

Gulf Prod. Co.'s No. 33 Lutcher Moore, Sec. 19-9s-8w.
Drlg. sand 3,117 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 12 Yount Lee Oil Co., 800 ft. S of No. 11, in line with Nos. 9 and 11, Sec. 12-13s-3w.
Reaming 8,509 ft.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 807 fee.
Bldg. derrick.
Union Sulphur Co.'s No. 2 Noble, E of No. 1 6⅝-in. csg. 5,137 ft.; T.D. 5,146 ft.
Union Sulphur Co.'s No. 790 fee, 929 ft. S and 802 ft. W of C Sec. 29-9s-10w.
Waiting on cmt. to set 5,691 ft.
Union Sulphur Co.'s No. 2 Ulrich, 600 ft. N of No. 1.
Abd. 6,230 ft.

VINTON—CALCASIEU PARISH

Vinton Pet. Co.'s No. 13 Gray, 605 ft. N and 374 ft. W of SE cor. Sec. 33-10s-12w
Drlg. salt 4,855 ft.
Wilson Broach's No. 9 Wilson.
T.D. 3,672 ft.; sidetracked 3,187 ft.; drlg. shale 3,363 ft.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 1 White Castle Shingle Co., 1,830 ft. W, 100 ft. S from NE cor of lease.
Drlg. salt 4,855 ft.

MISCELLANEOUS WILDCATS

TEXAS

BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 1 Houston Farm Dev. Co., 1,414 ft. N, 316 ft. W of SE cor. of L. Bachelder Sur.
Set whipstock 6,850 ft.; drilled 10 ft.
Big Creek Oil Co.'s (C. & R. G. Drlg. Co.) No. 2 Truska, 991 ft. W of No. 1, H.T.&B Sur., Sec. 7.
S.D. 935 ft.
Holt et al's No. 1 Griffith, J. D. Bailey Sur
T.D. 4,300 ft.; waiting orders.
Luling O. & G. Co.'s No. 1 Jameson, 600 ft W of E line, 750 ft. S of N line of N E. Roberts Sur.
S.D. 2,400 ft.
Showers & Moncrief's No. 1 Hughey, 5,500 ft. NW of discovery well, in center of Lot 18, H.T.&B. Sur., Sec. 29, Abst. 393
Location.

CALHOUN COUNTY

Continental Oil Co.'s No. 1 American Nat Realty Co., C of NE of Sec. 6, Blk. C.
Preparing to work over.
Steinberger Pet. Co.'s No. 1 W. A. Shofner, 330 ft. from S and E lines of 100-ac. tract in M. Sanches Sur.
Bldg. derrick.

CHAMBERS COUNTY

Humble O. & R. Co.'s No. 1 Middleton, 467 ft. each way out of the SW cor. of survey.
Drlg. shale 6,520 ft.
Sun Oil Co.'s No. 1 Hamilton, 1,400 ft. from N line, 1,400 ft. from W line of survey T.&N.O. Sur., Sec. 128.
Coring sandy shale 8,273 ft.; slight gas odor.

COLORADO COUNTY

Danciger O. & R. Co. and L. E. Hults's No. 1 C. L. Raver, 990 ft. N and E of SW cor. 477 acres, Sec. 1, B.B.B.&C. Sur
Coring shale.
George White et al's No. 1 M. M. Cravins, 1,000 ft. from N, 300 ft. W of SW cor. of survey, B.B.B.&C. Sur. No. 8.
Bldg. derrick.

FORT BEND COUNTY

W. A. Shafer et al's No. 1 V. B. Bortash 693 ft. SW of NE line and 1,003 ft. NW of SE line of Sec. 52, H.&T.C. Sur.
S.D. 2,900 ft.

GALVESTON COUNTY

Gillock Pet. Co.'s No. 2 Maco Stewart, 900 ft. N and 150 ft. W of No. 1, Alex Farmer Sur.
T.D. 1,500 ft.; waiting on surface pipe.
S.D.
Texana Gulf Oil Corp.'s No. 1 Thomas Shaw (200 acres), 150 ft. NW line, 188 ft. NE line, Lot 66, Sec. 7, Hall & Jones Galveston Island.
Coring shale 6,471 ft.

GRIMES COUNTY

Hubert Holt et al's No. 1 Simon Fuqua, 1,200 ft. N of S line and 400 ft. W of E line of 177-ac. lease and survey, Moses Evans Sur.
S.D. 3,080 ft.
Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
S.D. 2,005 ft.
Roan et al's No. 1 S. W. Sealy, 3,474 ft. N of S line and 350 ft. E of W line of survey, B. F. Smith Sur., 2 miles SW of Kellum Springs.
S.D. 2,650 ft.

HARRIS COUNTY

Cockburn Oil Co.'s No. 1 Brooks, 7,400 ft SW of NE cor. of Robert and Richard Vince Sur.
Abd. 6,015 ft.; shale.
Cockburn Oil Co. and Frazier's No. 1 Herman Hospital, 910 ft. N, 300 ft. W of SE cor. of tract.
Prepare to spud.
Esco Oil Co.'s No. 1 E. P. Seureau, 3,233 ft. from W line and 2,215 ft. from S line of 350-ac. tract, W. P. Harris Sur., Abst. A-30.
S.D. 6,023 ft.
Goldston et al's No. 1 Weingarten, 467 ft. out of NE cor. of H.&T.C. Sur., Sec. 39.
Abd. 6,606 ft.
T. S. F. Oil Co.'s No. 1 J. B. Hine, Arthur McCormick Sur., Abst. 46.
Drlg. shale 3,950 ft.
C. C. Foster et al's No. 1 H. K. Johnson, 2,000 ft. from S line and C of E and W lines of G.C.&S.F. Sur.
Drilled 25 ft. and S.D.
Means and McGehee, Inc.'s No. 1 Laura Lackner, 9,857 ft. W and 2,803 ft. N, of H. Rinerman Sur.
Drlg. shale 5,750 ft.
Means & McGehee's No. 1 Herbert Neuhaus, 400 ft. from S and E lines of 154.55-ac. tract, Wm. P. Morton Sur.
Drlg. shale 2,000 ft.
Hill & Hill's No. 1 Wharton, 466 ft. from NW cor. Sec. 5, W.C.R.R. Sur.
Derrick.
W. U. Paul's No. 1 E. M. House, 2,300 ft. N and 1,000 ft. E of NE cor. of E. Benson Sur. in M. Magruder Sur.
Abd. 7,329 ft.

HOUSTON COUNTY

Adams et al's No. 1 Sanders, 330 ft. from S line, 330 ft. from W line of 55-ac. tract of lease, J. Thomas Sur.
Tested 500 ft. of wtr. with brackish taste.
Sterling O. & R. Co.'s No. 1 Bruton, 3,350 ft. from E line and 5,000 ft. from S line of survey, Barton Clark Sur.
Location.

JACKSON COUNTY

A. M. Harris' No. 1 Whitley, 300 ft. out of SE cor. of F. G. Keller Sur.
Location.

JASPER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1 Sabine Tram. Co., 330 ft. out of NW cor. Sec. 71, H.&T.C. Sur.
Bldg. roadway.

JEFFERSON COUNTY

Sun Oil Co.'s No. 1 H. Long, 1,500 ft. W line, 990 ft. E line of lease.
Cutting and pulling 4½-in. liner and screen.
Sun Oil Co.'s No. 1 Hebert & Braussard, 6,890 ft. NW along SW line and 660 ft. NW at right angles to SW line, B. Blackman Sur., Abst. No. 2.
Rig up.

LIBERTY COUNTY

R. M. Bruner et al's No. 1 N. Bell, 150 ft from N line and 150 ft. from W line of Bell's 187-ac. tract, H.&T.B. Sur. No. 4.
Rigging up.
Extension Oil Co.'s No. 1 J. A. Lovett, 330 ft. from E and 600 ft. from S line of lease. P. P. Deevers Sur.
T.D. 4,048 ft.; to install heavier rig.
Liberty-Independent Oil Co.'s No. 1 J. M. Neal, 3,550 varas from E line and 500 varas from N line of Samuel Strong Sur.
Drlg. sandy shale 3,750 ft.
A. L. Maxwell's No. 1 M. P. Hincliff, 300 ft. from E line and 1,000 ft. from the N line of survey, H.&T.C. Sur., Sec. 10s.
Rig up.
Thomas et al's No. 1-A Eicke, 660 ft. from W line and 2,250 ft. from S line of tract in Green Sur.
T.D. 5,047 ft.; 6⅝-in. csg. at 5,029 ft.

MATAGORDA COUNTY

Cockburn Oil Co.'s No. 6 Hawkins, 2,600 ft. from NW line, 1,200 ft. from SW line of McCarthy Sur.
Drlg. shale 5,730 ft.
Dr. Griffith's No. 1 fee, 3,000 ft. from E line and 3,000 ft. from W line of Wm. H. Bell Sur.
Rigging up and S.D.
Horace M. Smith, Inc.'s No. 1 Wadsworth ranch, 150 ft. out of S cor. of Lot No. 8. Blk. S. R. Fisher Sur.
S.D. 3,500 ft.

MONTGOMERY COUNTY

Reynolds Drlg. Co. et al's No. 1 Mrs. Clara B. Stewart, 330 ft. S and E of most easterly inner cor. of 595-ac. tract, John Corner Sur.
S.D. 5,500 ft.
Walter Keeble's No. 1 Foster, 700 ft. E of W line, 2,000 ft. N of S line, Lot 27.
Cmtd. 10-in. csg. 226 ft.
Woodard-Smith-Cooper's No. 1 J. V. Scott, F. A. B. Wheeler Sur.
S.D. 5,730 ft.

ORANGE COUNTY

Blue Line Oil Co.'s No. 1 Godwin, Richard Ballew Sur., 300 ft. from E line and 150 ft. from NE line of Godwin 20-ac. tract.
S.D. 2,770 ft.

POLK COUNTY

C. & C. Drlg. Co.'s No. 1 Granbury & Smith, 600 ft. N and 600 ft. W from most western NW cor. of Gulf Prod. Co.'s Graybury & Smith lease, in the Wm. Shadburn Sur.
Rig up.
Howard Dailey et al's No. 1 Z. B. Knox, 1,450 ft. W and 1,920 ft. S of NE cor. of F. Chairs Sur., 16 miles NE of Corrigan.
S.D. 60 ft.
J. F. Anderson's No. 1 E. L. Duke (O.W.D. D.), 400 ft. from E and 350 ft. from S of SW cor. of P. Michelick 50-ac. lease, Abst. 59, P. J. Mineral Sur.
Waiting on a new mud pump; T.D. 5,304 ft.
Dick Schwab's No. 1 Lynch, 330 ft. out of NW cor. of 200-ac. tract in the George Jameson Sur.
Location.
E. A. Thompson's No. 1 Haynes, 990 ft. out of NW cor. of 320-ac. tract and survey, J. Whitmire Sur., E of Leggett.
Rig up.
West Prod. Co.'s No. 1 W. T. Carter, 330 ft. due E of SE cor. of W. D. Johnson's 52.7-ac. lease, 3½ miles E of Livingston Field, S. C. Hiram Sur., Abst. A-37.
Drlg. 1,300 ft.

REFUGIO COUNTY

Cecil Hagen et al's No. 1 Edith Clarkson, 1,726 ft. from N line, 2,320 ft. from E line of J. Coughlin Sur.
Location.

SAN AUGUSTINE COUNTY

Fidelity Exploration Co.'s No. 2 Bryan & Flourney, 400 ft. from No. 1.
T.D. 1,565 ft.

TRINITY COUNTY

Moore and McLaughlin's No. 1 White, 250 varas from N line, 363 varas from E line of 66-ac. tract, Goff Sur.
Spudded.

WALKER COUNTY

Seaport Oil Co.'s No. 1 W. B. Ross, in SE cor. of an 80-ac. tract out of the Wm. Hodge Sur.
Drlg. shale 4,102 ft.

WALLER COUNTY

Smith et al's No. 1 J. S. Garrett, 4,840 ft. NW and 325 ft. NE from SE cor. of S. M. Williams Sur., 3 miles N of San Felipe.
Location.
Stanolind O. & G. Co. et al's No. 1 J. W. Tharp, 466 ft. from S and E lines of J. M. Bennett Sur. No. 100.
T.D. 7,647 ft.; P.B. to 7,400 ft.; running screen.

WHARTON COUNTY

John Deering's No. 1 C. T. and D. Kountze, 1,320 ft. from N line, 330 ft. from E line of S.A.&M.G. Sur., Sec. 1, Abst. 328.
Drlg. shale 535 ft.
Texas Co.'s No. 1 Pierce Estate, 4,850 ft. S, 34 deg. E and 4,300 ft. N, 56 deg. E from W cor. of Tract 2, I.&G.N. Sur. No. 31.
Derrick.

SOUTH LOUISIANA

ACADIA PARISH

Humble O. & R. Co.'s No. 1 American Rice Mills, 660 ft. S and 1,320 ft. W from NE cor. Sec. 27-10s-1e.
Drlg. shale 3,000 ft.
Superior Oil Co. et al's No. 1 A. S. Newman, 2,000 ft. N and 1,120 ft. E of SW cor. Sec. 24-7s-1w.
T.D. 7,575 ft.; D.S. stuck.

ASCENSION PARISH

Humble O. & R. Co.'s No. 2 S. Gumbel & Co., 500 ft. southwesterly from No. 1, 275 ft. easterly from road and approx. 475 ft. N of S line of tract, Sec. 33-10s-2e.
Made D.S. test from 5,751-81 ft.; in hard sand showing oil.

AVOYELLES PARISH

Southern State Pet. Co.'s No. 1 Boyette, 330 ft. N and 330 ft. E of SW cor. Sec. 23-3n-5e.
Drlg. gumbo 1,010 ft.

BEAUREGARD PARISH

Richardson & Martin's No. 1 Southwest Lbr. Location.

CALCASIEU PARISH

Fred Oil Co.'s No. 2 Faizst, 262 ft. E and 83 ft. S of NW cor. SE¼ Sec. 26-8s-10w.
Derrick.
Fohs Oil Co.'s No. 1 McIvor, 330 ft. S and W of NE cor. Sec. 14-9s-8w.
Location.
Fohs' No. 1 O. H. Castle, 330 ft. S and 330 ft. W of C Sec. 18-9s-3w.
T.D. 7,065 ft.; cleaning; showing oil and gas.
Gulf Prod. Co.'s No. 1 H. Starks et al, 1,650 ft. W and 1,980 ft. S of NE cor. Sec. 26-11s-12w.
Drlg. shale 5,620 ft.
Nicholas McCaleb's No. 1 Grey, 2,200 ft. S, 1,200 ft. E of NW cor. Sec. 22-8s-13w.
Derrick.
Texas Co.'s No. 1 Nickerson, 3,139 ft. N and 3,238 ft. W of SE cor. Sec. 12-9s-8w.
Drlg. gravel 1,133 ft.
Union Sulphur Co.'s No. 1 Powell Lbr. Co., 600 ft. N of No. 1 State, Sec. 12-9s-8w.
Drlg. sand 6,741 ft.
Union Sulphur Co.'s No. 2 State, 748 ft. S and E ft. E, NW cor. SW Sec. 12-9s-8w.
Drlg. hard sand 6,263 ft.
Union Sulphur Co.'s No. 3 State, 2,135 ft. S, 2,340 ft. E of NW cor. Sec. 12-9s-8w.
Location.
Union Sulphur Co.'s No. 1 Castle, 326 ft. N and E of NW Sec. 13-9s-8w.
Drlg. shale 4,471 ft.
Union Sulphur Co.'s No. 1 Buhler, 1,485 ft. N and 425 ft. W of SE cor. Sec. 11-9s-8w.
Drlg. shale and lime 5,482 ft.
Wheeler Oil Co.'s No. 1 Gabbert, 1,322 ft. E and 548 ft. N of SW cor. of Sec. 23-9s-7w.
Drlg. shale 3,148 ft.

EAST FELICIANA PARISH

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
S.D. 1,490 ft.

CAMERON PARISH

Texas Co.'s No. 1 Jessen, 1,170 ft. E and 550 ft. N of C Sec. 24-14s-10w.
Drlg. sand 6,714 ft.

JEFFERSON DAVIS PARISH

George W. Strake's No. 1 Calcasieu Natl. Bank, 200 ft. S and E of NW cor. SE NE Sec. 12-9s-6w.
P.B. to 7,550 ft.; W.O.C.

JEFFERSON PARISH

Texas Co.'s No. 1 Bayou St. Dennis, 20,907 ft. S, 4,853 ft. E of NW cor. of Twp., Sec. 19-17s-24e.
Drlg. shale 1,166 ft.

LAFOURCHE PARISH

Emerald Pet. Co.'s No. 1 Bowie Lumber Co., 4,431 ft. N and 1,632 ft. E of SW cor. Sec. 53-10s-8e.
Abd. 8,452 ft.
Southern Sulphur Corp.'s No. 1 D. L. Lagraize, 800 ft. E of NW cor. of Lot 7, thence 250 ft. S of Sec. 26-21s-22e.
Spudded and shut down.

PLAQUEMINES PARISH

Venice Corp.'s No. 1 Burras.
Drlg. shale 1,901 ft.

RAPIDES PARISH

J. B. Evers' No. 1 G. Wettermark, 540 ft. S and 520 ft. E, NW cor. NE SW Sec. 35-6n-2e.
Rig up and S.D.
C. D. Loe's No. 1 Barrett, 330 ft. NW of SE line and 330 ft. NE of SW line of Sec 40-5n-1w.
Rig up and S.D.
Williams-Terrell & Day's No. 1 Armstrong & Murphy, 286 ft. N and 360 ft. W of SE cor. Sec. 24-5n-1w.
Derrick.

ST. BERNARD PARISH

Danciger's No. 1 Battles, 836 ft. N, 2,199 ft. W of SE cor. Sec. 135-14s-14e.
Cmtd. csg.; moved off rig; T.D. 6,091 ft.

ST. LANDRY PARISH

H. J. Weir's No. 1 Declouet, Sec. 108-8s-5e, near Lafayette Parish line and 3 miles N of Anse La Bute Field.
S.D. 2,322 ft.

TANGIPOHA PARISH

R. A. Conklin's No. 1 Lake Superior Piling Co., 200 ft. W and N of SE cor. Sec. 19-5s-9e.
S.D. 850 ft.

VERMILLION PARISH

Moore Bros.' No. 1 Brussard, 350 ft. S of N line, 250 ft. E of W line, NE cor. Sec. 32-11s-3e.
S.D. 4,056 ft.

NEW AND IMPROVED EQUIPMENT

Worthington Introducing New Type of Power Pump

Worthington Pump & Machinery Corp., Harrison, N. J., announces the completion of an 18-inch stroke totally enclosed horizontal duplex power pump for a wide range of services. The power end is self-contained, is supported on the foundation throughout its length, and is designed to minimize the cost of foundations. The complete pump may easily be set up without danger of misalignment and, once set, it is permanently in line.

The power end is simple, strong and

ruggedly built for hard continuous duty with a minimum of attention. The frames are cast en bloc and all moving parts are totally enclosed; dust, dirt, grease and oil tight. The crankshaft, pinion shaft and crank pin bearings are the self-contained, double-row, tapered-roller, anti-friction type. An oil pump, driven by a crank from the pinion shaft, supplies oil for the flood lubrication of all bearings and the pressure spray lubrication at the intermesh of the gear and pinion. The main gear and pinion are full herringbone and may be of any ratio required up to 9.66 to 1.

The totally enclosed power end was developed primarily for refinery service, but, because the moving parts are fully protected from dust and dirt, it has a wide field of usefulness in field and pipe line service for loads up to 200 horsepower. The totally enclosed power end is designed for use with either the packed piston or outside end-packed plunger types of liquid ends for either hot or cold liquids.

The accompanying illustration shows a Worthington piston pattern power pump with a totally enclosed power end. The liquid end is the Worthington "HiVol," for pumping propane, butane and other highly volatile liquids.

Snetcher & Pittman Open Three New Branch Stores

Snetcher & Pittman, Inc., Oklahoma City, have opened branch stores recently in Houston and Odessa, Tex., and Scott,

La., for distribution of their line of Green Head bits and reamers and oil field specialties. Gus Layton is manager of the Houston and Scott branches, and Al Parker of the one in Odessa. The picture shows the Scott store, which serves southern Louisiana and Texas, with Mr. Layton in the foreground.

Notes About Trade Literature

The Chicago Pneumatic Tool Co., 6 East Forty-fourth Street, New York, has issued a booklet of 16 pages devoted to a newly designed line of horizontal single-stage compressors designated as Type T.

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A request sent to the M. W. Kellogg Co., 225 Broadway, New York, brings a bulletin on "Masterweld" refinery equipment, showing some of the large pressure vessels manufactured for use in the petroleum industry.

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A mechanical seal for centrifugal and rotary pumps, called "Dura Seal," said to eliminate expensive repairs resulting from wear on the shaft or stem, is the subject of a bulletin prepared by the Durametallic Corp., 2104 Factory Street, Kalamazoo, Mich.

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A new book of engineering data, designed to simplify the selection of belting, hose and other mechanical rubber goods for industrial service and sent on request, has been compiled by the B. F. Goodrich Co., Akron, Ohio.

—

Bulletin L-611-B3, describing steam booster compressors for steam power plant operators and steam users generally, may be obtained from the Worthington Pump & Machinery Corp., Harrison, N. J. The company announces bulletins also on drill steel shop equipment and Worthington vertical four-cycle gas engines.

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The use of tractors and road machinery for every type of oil field and pipe line work is described and illustrated in a new booklet, "On the Job in the Oil Fields," issued by Caterpillar Tractor Co. of Peoria, Ill.

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The Roots-Connersville Blower Corp., Connersville, Ind., is mailing to those who ask for it a bulletin describing the operation and construction of Type T turbine pumps.

"Special Attachments for Special Needs" is the title of a new booklet mailed on request by Caterpillar Tractor Co., Peoria, Ill., illustrating and describing attachments ranging from bumpers to power takeoffs and telling how they are used to add to the profit and satisfaction of tractor operation.

—

The Merco Nordstrom Valve Co., Pittsburgh, Pa., a subsidiary of the Pittsburgh Equitable Meter Co., has issued a service chart describing under the headings, "Operation," "Adjustment," "Lubrication" and "Repair," the proper care of Nordstrom lubricated plug valves. The chart, suitable for tacking on the wall, is sent on request.

—

A new moderate-duty outdoor group-operated switch (Type TC) is described in a loose-leaf bulletin being mailed by the General Electric Co., Schenectady, N. Y.

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Gas distribution difficulties and means to overcome them are discussed in Bulletin No. 4, titled, "'Tetralin' for the Gas Industry," issued by the fine chemical division, E. I. du Pont de Nemours & Co., Wilmington, Del. This manual for the use of gas engineers was prepared by the technical staff of the company.

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Of interest to refiners is a bulletin issued by the Russell Electric Co., 380 West Huron Street, explaining its "Holdheet" pyrometers, both wall and portable type, and the savings effected by them. The portable pyrometers are said to be a requisite of every shop and power plant.

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The Rathbun Co., Inc., El Paso, Tex., and the Waukesha Motor Co., Waukesha, Wis., have co-operated in the preparation of a bulletin giving directions for the use of Rathbun's water treatment where scale-forming conditions are present.

Three Pipe Line Supply Men Have Broad Experience

The three widely known pipe line supply men shown are, left to right: A. S. Crutcher, E. L. Rolfs and J. D. Cummings, of Crutcher-Rolfs-Cummings, Inc., Houston, Tex.

Prior to formation of this firm in November, 1933, Mr. Rolfs was associated with Johns-Manville Co., general industrial sales department. He was active in the development of the Johns-Manville pipe wrapping machine, with which thousands of miles of pipe have been protected against corrosion.

Mr. Crutcher has been identified with pipe line equipment sales since 1925. In 1932 he went to Europe as the representative of a group of American manufacturers interested in supplying pipe line equipment on the Iraq line. Largely as a result of his efforts most of the material used was American made.

J. D. Cummings invented the first pipe line backfilling bulldozer and the first pipe line side-winch and boom, machines which since have been used on pipe line work over all the world.

Men Well Known in the Equipment Field

The Smith Separator Corp. has appointed W. G. Palmer as its representative in Dallas, Tex. Mr. Palmer, who has been 17 years in natural gas and gasoline industries in design, construction and operation of various types of plants,

W. G. PALMER

began as a draftsman in the gas division of the manufacturing department of the Union Oil Co. of California, later becoming efficiency engineer in the conservation division. While the Los Angeles Basin booms were in progress he was engineer of design for the J. A. Campbell Co. of Long Beach. In 1928 he went to the Mid-Continent area as chief engineer for the Forrest E. Gilmore Co., Tulsa. Since then he has been connected with organizations in Arkansas, Kansas, Oklahoma and Texas.

D-C Type Motor Operates From A-C Power Source

A new type of electric motor, which utilizes a "stationary commutator" and has the characteristics of a series-type D-C machine but which operates from an A-C power source, has been developed by E. F. W. Alexanderson, consulting engineer of the General Electric Co., Schenectady, N. Y. Known as a "Thyratron" motor, the new development is made possible by recent advances in the application of electron tubes.

One motor of this type, intended for use in driving an induced-draft fan, has already been built and is now on test in the Schenectady Works of the company. It is rated 400 horsepower at 625 r.p.m., and 75 horsepower at 350 r.p.m. These are the specified ranges of horsepower and speed for the particular application, although the motor may be controlled down to standstill, if required. The equipment operates from a 2,300-volt, 3-phase, 60-cycle power supply.

Because of these characteristics, motors of this type are applicable to such auxiliaries as fans, centrifugal pumps, compressors, and similar equipment having load characteristics such that the series type of motor can be used to advantage.

Eastern Fields

(Continued from Page 68)

feet, the Big Injun sand. It is a gas well with a volume of 174,600 feet a day. In the same district, Ben F. Gilmore and others completed a test on the William Britton farm in the Injun sand at 1,877 feet. It is a small gas well gauging about 59,000 feet a day.

In Murphy district, Ritchie County, Burk & Deem, drilling as Lawrence Oil Co., completed a test on the W. W. Lawrence farm on Laurel Run in the Injun sand at 2,060 feet. It is a gas well showing for 500,000 feet a day.

In Roane County, Charles Despard and others completed a second test on the Charles Starcher farm in Smithfield district in the Injun sand at a depth of 2,034 feet. It gauges 112,000 feet a day, natural. In the same district, Howard Bartlett and others drilled a test on the C. C. Brannon farm through the Berea sand to a depth of 2,381 feet. It was dry and is being abandoned.

Drilling in West Virginia

In Calhoun County, Starcher & Richards have made location on the Albert Kight farm of 28 acres in Sherman district, and also for a test on the same farm name of 52 acres. A. Rothwell and others lost the tools on the J. H. Surms farm at 1,755 feet.

In Clay County, Benedum & Trees have started another test in Otter district on the Hill farm about 1 mile southeast of their test on the Andrew Tanner farm. In Pleasant district, F. F. McIntosh has made a location on the Peabody Coal Co. lease.

In Gilmer County, J. W. Cunningham and others have part of the material on the ground on the Lee and Ola Gainer farm in DeKalb district. In Center district, Steer Creek Oil & Gas Co. has the material on the ground for No. 8 on the C. D. Mollahan farm. In DeKalb district, Hope Construction & Refining Co. cleaned out No. 7 on the R. L. Weaver farm and doubled the production.

In Kanawha County, J. B. Weir is building a rig for No. 108 on the Falling Rock C. C. Co. land in Big Sandy district. In Cabin Creek district, Godfrey L. Cabot, Inc., is down 810 feet and 1,405 feet in Nos. 51 and 52 on the A. D. Huntington lease.

In Marshall County, McIntire and others have started drilling on the J. W. Henry heirs farm in Franklin district. In Monongalia County, several wells are soon to be started due to certain necessary offsets.

In Ritchie County, Mahaney & Lucas have a rig standing for No. 6 on the J. F. and Laura Kelly farm in Clay district, the lower end of the Pike Pool. In Union district, S. M. Prunty and others have a rig standing for a second test on the Amos Brissey farm. In Murphy district, H. W. Collings has started drilling on the Elijah McGill farm. C. S. Morris has made a location on the W. E. Cox farm. On the waters of Big Run in Grant district, Big Run Oil Co. has rigged up for No. 3 on the E. S. Gilmore farm.

In Roane County, K. M. Hunt and others are rigging up on the T. J. Murray farm in Curtis district. In Spencer district, George E. Smith has reached 1,850 feet in a second test on the L. A. Sort farm. In Reedy district, on Sugar Camp Run, Heck Oil Co. cleaned out No. 6 on the A. D. Tallman farm and increased production from 10 to 20 bbls. a day.

In Wetzel County, C. B. Lewis and others have started drilling on the Nicholas Blatt farm in Proctor district. In Meade district, Tyler County, J. W. Kerns and Austin Smith have rigged up on the Ira Hill farm.

Kansas Fields

(Continued from Page 66)

J. J. Hall and others' No. 2 Miller, SE SE SE Section 30-14-13w, had Oswald lime at 2,869-3,154 feet and the well pumped 594 bbls. of oil and 6 bbls. of water. It was acidised at 2,869 to 2,910 feet and pumped 83 bbls. of oil, completed.

J. J. Hall and others are rigging up to deepen No. 1 Miller, NW NE NE Section 31-14-13w, present total depth 3,043 feet. Hartman & Blair have made a location for No. 1 Hildebrandt, NW NE SW Section 12-14-14w. Darby Petroleum Co. made a location for No. 2 Jarus, SW NW NE Section 16-16-12w.

Rooks County

Carman & Hershey have ponds dug for a wildcat test, No. 1 Nelson, NW NW NE Section 27-10-16w.

Harvey County

The Imo Oil & Gas Co.'s discovery well in northern Harvey County, No. 1 Sperling, SE NE NE Section 23-22-2w, was put on the completed list after it had pumped a potential production of 1,625 bbls. from Hunton lime at 3,279-3,327 feet. The well had been acidized.

Shell Petroleum Corp.'s No. 7 Voth, NW SW NW Section 4-22-3w, swabbed 320 bbls. in 12 hours from Hunton lime at 3,495-3,510 feet.

Phillips Petroleum Co. made a location for No. 1 Ewy, NW SW NW Section 24-22-2w, Harvey County. H. H. & S. Oil Co. had cellar dug for No. 1 Frizzle, NE SE SE Section 31-23-2w, a wildcat.

Elk County

Lassen's No. 1 Ferguson, SE SE SW Section 21-30-8, Elk County, pumped 60 bbls. of oil after an acid treatment at 2,160-81 feet.

Superior Oil Co.'s No. 4 Rorick, SW SE SE Section 22-31-10, is a 60-bbl. pumper, completed in Kansas City lime at 1,338-47 feet which had been acidized.

Superior Oil Co. was drilling at 225 feet in No. 5 Rorick, 910 feet north and 910 feet west of SE cor. Section 22-31-10, Elk County.

Butler County

In Butler County, Hammer & McClain's No. 1-A Suits, C W half SW NW Section 10-27-4, was acidized in Kansas City lime at 1,996-2,014 feet and pumped 202 bbls. in 24 hours, 12 per cent water. It was completed.

Trees & Harwood have machine in to start a wildcat test in SW SE NE Section 7-24-8, Butler County. Sheldon & Wixson have ponds dug for No. 1 Wilson, NE NW NE Section 1-25-3. Morgan & Buffington spudded No. 1 Schumacher, SW SW SE Section 12-25-4. In Greenwood County, O. O. Owens was rigged up to start No. 1 Dales, SW SE SE Section 2-24-10.

Marion County

Jeffers and others' No. 1 Jeffers, NW SW SW Section 17-21-5e, Marion County, proved a 300-bbl. pumper after having been acidized at 2,349-51 feet. It also pumped 100 bbls. of water per day. It was completed.

Sedgwick County

Dickey Oil Co.'s No. 2 Brown, NW SW NE Section 20-28-1e, Sedgwick County, was an 830-bbl. initial producer, flowing, from Chat at 3,128-62 feet which had been acidized. It was completed.

Tom Johnson and Atlantic Oil Producing Co. completed No. 1 Cook, NE NE SW Section 20-28-1e, which made 827 bbls. flowing from Chat at 3,093-3,111½ feet which had been acidized.

Magnolia Petroleum Co. completed No. 4 Robbins, NW NW SE Section 20-28-1e, in Chat at 3,097-3,110 feet. It was acidized and flowed 753 bbls. the first day.

Canadian Fields

(Continued from Page 72)

feet, after encountering some small shows of oil and gas. Location is east of Hunter Valley Oil Co.'s No. 1, LSD 12, Section 13-31-10w5, shut down at 4,814 feet, and west of the town of Olds.

Border Fields

On the Cardston structure, southern Alberta, Franco Oils' No. 1, LSD 6, Section 5-3-25w4, is below 1,900 feet.

On the Alberta end of the Red Coulee Field, Vanalta, Ltd., of Vancouver, British Columbia, whose No. 6 recently finished off structure, is preparing to drill No. 7, utilizing casing and equipment from the dry hole. The company has increased production by shooting No. 4 and is preparing to clean out No. 2. It has also taken up 160 acres of leases on the Watson structure near Mar Jon's No. 3 location.

Canadian Resources, Ltd., financed by Edmonton men, has bought an 80-acre lease in Montana covering W half NW Section 26-35-1 with a producing well and is arranging to continue development.

Hudson Bay Junction

Major G. G. Howard, geologist, who has been active in the Montana fields, recently completed an inspection of the Hudson Bay Junction area in northern Saskatchewan, where heavy asphaltic oil was reported some time ago in Trail Blazer Oil & Gas Co.'s No. 1, SW Section 32-44-3w2. His findings indicate that the structure is a wide fold with oil in the upper Devonian in a sand estimated about 100 feet thick. Good production, he thinks, may be secured from local highs, with average depth around 800 feet.

Trail Blazer's No. 1 is standing at 610 feet after encountering heavy crude. Senator Oil & Gas Co. of Ottawa will assist in financing completion of the test.

Canadian Production

Official figures just issued show that the crude oil production of Canada in 1934 was slightly in excess of the government estimates made at the end of the year. The total for all Canadian fields was 1,418,811 bbls., as compared with a preliminary estimate of 1,414,197 bbls., and with a production of 1,162,541 bbls. in 1933. The December production, 117,113 bbls., comparing with 113,228 bbls. in November, included 1,025 bbls. from New Brunswick, 10,284 bbls. from Ontario, and 105,804 bbls. in Alberta.

Of the 1934 production, 11,545 bbls. came from New Brunswick, 141,326 bbls. from Ontario, and 1,265,940 bbls. from Alberta. All three provinces showed increases, the 1933 figures being: New Brunswick, 8,835 bbls.; Ontario, 136,058 bbls.; and Alberta, 1,013,040 bbls.

Drilling in Ontario

In the Dover Field, Kent County, Ontario, Medina Natural Gas Co.'s No. 1 Stirling lease, east half Lot 1, Concession 4, Dover East Township, got the Trenton limestone at 2,920 feet, with a fair show of gas, between 50,000 and 100,000 feet a day, between 7 and 10 feet in the Trenton. It is standing at 2,950 feet and getting in shape to drill in. Prairie Oil & Gas Co.'s No. 3 has been located on the Stephens farm, Lot 2, Front Concession, Dover East, about 1,000 feet north and west of No. 1 producer and about 600 feet south of Olga Oil & Gas Co.'s No. 4, which finished a dry hole a couple of years ago. Equipment is being moved in.

In the Tilbury Field, Kent County, equipment is being moved for Ladd & Ziegen's No. 2, Guy Mifflin farm, Lot 17, Concession 14, Tilbury East Township.

Empire Natural Gas' No. 13 has been finished in Norfolk County with better than 100,000 feet a day initial open flow; and No. 14 is drilling.

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NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

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